

CURRICULUM VITAE
(July 31, 2009)

NAME: Carlos Castillo-Chavez

TITLE: [Regents](#) and Joaquin Bustoz Jr. Professor

School of Human Evolution and Social Change ([SHESC](#))

School of Mathematical and Statistical Sciences ([SOMASS](#))

EXECUTIVE DIRECTOR: [MCMSC](#)¹[MTBI](#)²/[SUMS](#)³

DIRECTOR: Ph.D. Applied Math in Life and Social Sciences
([AMLSS](#))⁴

ADDRESS:

Mathematical, Computational & Modeling Sciences Center ([MCMSC](#))

PSA 521

Arizona State University

P.O. Box 871904

Tempe, AZ 85287-1904



PHONES: (480) 965-2115

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EDUCATION:

<u>Year</u>	<u>Degree</u>	<u>Institution</u>
9/80-12/84	Ph.D.	University of Wisconsin-Madison
1976 to 1977	M.S.	University of Wisconsin-Milwaukee
1975 to 1976	B.A./B.S.	University of Wisconsin-Stevens Point

ACADEMIC RANKS:

Professor: 1997 -

Associate Professor: 1991-1997

Assistant Professor: 1988-1991

¹ Mathematical, Computational & Modeling Sciences Center <http://mcmssc.asu.edu/home>

² Mathematical and Theoretical Biology Institute: <http://mtbi.asu.edu/>

³ Institute for Strengthening Understanding of Mathematics and Science <http://mtbi.asu.edu/>

⁴ <http://shesc.asu.edu/node/508>

PRIMARY APPOINTMENT:

School of Human Evolution and Social Change (http://shesc.asu.edu/castillo_chavez)

ADDITIONAL APPOINTMENTS:

School of Mathematical and Statistical Sciences, Regular Faculty, <http://math.asu.edu/>

School of Life Sciences (SOLS)—Affiliated Faculty, <http://sols.asu.edu/>

Center for Population Dynamics (CePoD) —Affiliated Faculty,

<http://www.asu.edu/clas/ssfd/cepod/people/castillo.html>

Environmental Life Sciences Graduate Program <http://els.asu.edu/faculty>

Center for Social Dynamics and Complexity—Affiliated Faculty,

<http://www.asu.edu/clas/csdc/people.html>

CURRENT EXTERNAL APPOINTMENTS:

Santa Fe Institute, External Faculty Member, <http://www.santafe.edu/profiles/?pid=131>

Cornell University, Biological Statistics and Computational Biology Department,

Adjunct Professor, <http://www.bsbc.cornell.edu/adFac.php>

RESEARCH:

Carlos Castillo-Chavez' research program is carried out at the interface of the *mathematical and natural and social sciences* and puts emphasis on (i) the role of dynamic social landscapes on disease dispersal; (ii) the role of behavior on disease evolution, (iii) the role of behavior, environmental and social structures on the dynamics of addiction, (iv) the identification of mechanisms that facilitate the spread of diseases across multiple levels of organization. Specifically, in collaboration with various researchers (graduate students, postdoctoral students and faculty), Castillo-Chavez has been involved in the study of the role of cross-immunity on the evolution and dynamics of influenza; the impact of behavioral changes, epidemiological factors, behavior and social networks on HIV and Tuberculosis dynamics; the role of epidemiological factors, vaccination, public transportation and social structure on the transmission dynamics of tuberculosis dynamics and its control; the impact of life-history vector dynamics on dengue epidemics (Mexico and Peru); the identification of time response scales and their importance in the control of foot and mouth disease outbreaks (Uruguay); the study of role of population structure and control (vaccination, isolation, quarantine and others) on the transmission dynamics of rotavirus, pneumonia and rubella; and the study of the impact of increasing levels of pathogens' resistance to antimicrobials generated by nosocomial infections. More recently, Castillo-Chavez and collaborators have carried out theoretical work that highlights the role of disease dispersal as a key enhancing mechanism of ecological diversity. Most recently, his research efforts have focused on problems at the interface of homeland security and disease invasions (natural or deliberate) and on the development of models for the dynamics of social "diseases" that involve some form of addiction like alcohol consumption or ecstasy use with emphasis in specific groups like college populations. Work on models for the spread of ideologies and scientific information or knowledge has also been conducted in collaboration with various research groups.

PROFESSIONAL EXPERIENCE

2008-

- Executive Director, Mathematical, Computational & Modeling Sciences Center
<http://mcmssc.asu.edu/welcome>
- Director, Ph.D. in Applied Mathematics in the Life and Social Sciences
<http://shesc.asu.edu/node/508>

2006-

- Regents Professor, Arizona State University. <http://provost.asu.edu/regents/awardees>

2005-

- Director ASU Sloan Program for Underrepresented Minorities, Arizona State University.

2004 -

- Executive Director, Mathematical and Theoretical Biology Institute (MTBI) and Institute for Strengthening Understanding of Mathematics and Science
http://mtbi.asu.edu/People_Personal_Pages/Carlos-Castillo-Chavez.html

2004-

- Joaquin Bustoz Jr. Professor, Arizona State University

2004-2009

- Adjunct Professor, Department of Computational Biology and Biological Statistics, Cornell University
<http://www.bscb.cornell.edu/adFac.php>

2004-

- External Faculty Member, Santa Fe Institute. <http://www.santafe.edu/profiles/?pid=131>

2003

- Stanislaw M. Ulam Distinguished Scholar, Center for Nonlinear Studies, Los Alamos National Laboratory. <http://cnls-www.lanl.gov/External/Ulam.php>

2002- 2004

- Professor of Biomathematics, Department of Biological Statistics and Computational Biology, Department of Theoretical and Applied Mechanics, and Department of Statistical Science, Cornell University

1997 - 2004

- Director, Cornell-Sloan Fellowship Program for Underrepresented Minorities, Cornell University

1996 - 2003

- Director, Mathematical and Theoretical Biology Institute (MTBI), Cornell University

1999 - 2001

- Professor of Biomathematics, Department of Biometrics, Department of Theoretical and Applied Mechanics, and Department of Statistical Science, Cornell University

1997-2000

- Director, Cornell-Ithaca (High School) Mathematics Enrichment, Cornell University

1998-99

- Professor Biomathematics, Department of Biometrics and Department of Statistical Science, Cornell University.

1997 - 1999

- Professor of Biomathematics, Biometrics Department, Cornell University.

1995-97

- Chair, Biometrics Unit, Cornell University.

1991-97

- Associate Professor of Biomathematics, Department of Plant Breeding and Biometry, Cornell University

1988-1991

- Assistant Professor of Biomathematics, Department of Plant Breeding and Biometry, Cornell University

1985-88

- Visiting Assistant Professor and Postdoctoral Student, Department of Ecology and Systematics and Center for Applied Mathematics, Cornell University

1984-1987

- Assistant Professor of Applied Mathematics, Department of Mathematics, University of Tulsa

SABBATICALS, STUDY AND PAID LEAVES

2003-04

- Stanislaw M. Ulam Distinguished Scholar, Center for Nonlinear Studies, Los Alamos National Laboratory. <http://cnls-www.lanl.gov/External/Ulam.php>

1999

- Very Important Visitor (VIV), Institute for Mathematics and its Applications, Special Year in Mathematical Biology, University of Minnesota

1999

- Visiting Professor, Department of Mathematics with Howard University but at IMA

1998-99

- Cátedra Patrimonial in Mathematical Biology, Instituto de Investigaciones en Matemáticas Aplicadas y Sistemas (IIMAS), Universidad Nacional Autónoma de Mexico (UNAM)

1998

- Co-director, Special Year in Mathematical Biology, Centro Internacional de Ciencias, Cuernavaca, Mexico

1993-94

- Fellow, Princeton University.
- Member, Isaac Newton Institute for Mathematical Sciences, University of Cambridge, England (1/93-6/93)

HONORS, AWARDS. SPECIAL LECTURES and RECOGNITIONS

2009-

- **SIAM Key Note Speaker**, “*Travel, Mass Transportation and Emergent Diseases: SARS, Bioterrorism and Influenza*,” The 2nd International Conference on Mathematical Modeling and Computation and The 5th East Asia SIAM Conference, (June 8, 2009), University of Brunei Darussalam, June 8-11, 2009. Lecture also given on June 9th to the Ministry of Health of Brunei Darussalam.
- **Public Speaker**, “*Promoting Diversity in the Mathematical Sciences Success Stories*,” Mathematical Biosciences Institute, January 22, 2009.
- **Member**, National Research Council’s Board of Higher Education and Workforce or [BHEW](#) (2009-2011).

2008-

- **Key Note Speaker**, “*Mathematics and Society: Building Communities for the Future*”, Next Step in Math & Science Education: Our Community’s Future Conference, Indiana Univ. South Bend, South Bend, IN, 4/17/2008-4/18/2008
- **University Lecture or Lección Magistral**, Opening Academic Year University Lecture, “*Filosofía y Modelos para Incrementar la Presencia Puertorriqueña en las Matemáticas y sus Aplicaciones en Puerto Rico: Una Perspectiva Histórica y Política*,” Universidad de Puerto Rico, Cayey, Puerto Rico, 9/3/2008-9/5/2008
- **Keynote Speaker**, “Building Communities of Minority Researchers at the Interface of the Biological and Mathematical Sciences”, National Science Foundation, Arlington, VA, Hispanic Heritage Month Observance, 9/9/2008-6/3/2008 (<http://www.nsf.gov/od/oeo/hhm.pdf>)
- **Keynote and Banquet Speaker**, “The Building of Communities of Minority Mathematicians: The cases of Cornell, Iowa and Arizona State”, MSRI & EDGE Promoting Diversity at the Graduate Level in Mathematics: A National Forum, Berkeley, CA, 10/16/2008 (http://www.msri.org/calendar/workshops/WorkshopInfo/458/show_workshop)
- **Banff International Research Station (BIRS)**, Scientific Advisory Board.
- **NIMBioS**, Advisory Board and Committee to Promote Diversity, 8/200/-8/2011
- **MIT**, Member Advisory Board for the Initiative on Faculty Race and Diversity, 1/08-8/09

2007-

- **Co-Chair**, National Advisory Committee, SAMSI (Statistical and Applied Mathematical Sciences Institute (<http://www.samsi.info/>), Jan 1, 2007-December 31, 2009
- **2007 Mentor Award, American Society for the Advancement of Science (AAAS)**
http://asunews.asu.edu/20080213_aaasaward
- **Elected Fellow of the American Society for the Advancement of Science (AAAS)**
http://www.aaas.org/aboutaaas/fellows/new_fellows.shtml
- **Programs that Make a Difference (MTBI/SUMS)**, American Mathematical Society, 2007
<http://www.ams.org/employment/citation2007.html>
- **Member Alignment Committee**, The Governor's P-20 Council (Governor of Arizona Council on Mathematics Education)

2006-

- **Regents Professor**, Arizona State University. April, 2006 <http://provost.asu.edu/regents/awardees>

2006-2008

- **SIAM's Council** (2006-2008, elected)

2005-

- **Dr. Marjorie Lee Brown Colloquium Speaker** (<http://www.math.lsa.umich.edu/mlk/index.html>), *The Colloquium honors Dr. Marjorie Lee Browne, the first African-American woman to earn the Ph.D. in Mathematics from the University of Michigan.* January 17, 2005.
- **Distinguished Speaker Series**, University of Alabama at Huntsville
(<http://www.math.uah.edu/colloquia/9-23-2005.html>)
- **Distinguished Visitor**, Center for Applied Mathematics, National Singapore University, Singapore, August 21-27, 2006.
- **Distinguished Lecture Series Speaker**, University of Alabama at Huntsville, Huntsville, AL, September 22, 2005
- **Distinguished Speaker**, University of Miami, Oxford, Ohio, Annual Undergraduate Research Meeting, September 29-30, 2005.
- **Patricia Gurin Scholar-Activist Award**, CLSA, ASU April 26, 2005

2004-

- **Joaquin Bustoz Jr. Professor of Mathematical Biology**

2004-06

- **Co-Chair**, National Advisory Committee, SAMSI (Statistical and Applied Mathematical Sciences Institute (<http://www.samsi.info/>), Jan 1, 2004-December 31, 2006.
- **Honorary Professor**, Xi'an Jiaotong University, China, May 2004

2003-

- **Santa Fe Institute (2003-2006)**, External Faculty Member
(<http://www.santafe.edu/research/externalfaculty.php>)

2003-05

- **SIAM's Council (2003-2005, elected position)**. (<http://www.siam.org/about/council.htm>)

2003-04

- **Distinguished Visitor's Lecture Series Speaker**, Department of Mathematics, University of Iowa, November 17-20, 2003. (<http://www.math.uiowa.edu/colloq0304.htm>)
- **Richard Tapia Achievement Award for Scientific Scholarship, Civic Science and Diversity in Computing**, Coalition to Diversity in Computing (10/ 17/03)
(<http://www.ncsa.uiuc.edu/Conferences/Tapia2003/>).
- **Ulam Scholar**, Center for Nonlinear Studies, Los Alamos National Laboratory, Los Alamos, NM (2/ 03-12/ 03) (http://www.news.cornell.edu/Chronicle/03/4.3.03/Castillo-Chavez_CNLS.html)
(<http://cnls.lanl.gov/Ulam/2003/index.htm>)

2001

- **SACNAS Distinguished Scientist Award**, Phoenix, AZ.

<http://www.news.cornell.edu/Chronicle/01/10.4.01/Castillo-Chavez.html>
http://64.171.10.183/biography/bio_p.asp?mem=35&bio=35)

- **Stoll Distinguished Lecture Series Speaker**, Akron University, Akron Ohio (3/26/01-3/31/01).
2000

- **Giants in Science Award**, QEM Mathematics, Science and Engineering Network.
<http://www.news.cornell.edu/Chronicle/00/2.10.00/notables.html>

1999

- **Distinguished Alumni**, University of Wisconsin-Stevens Point
http://www.news.cornell.edu/releases/May99/Chavez_award.hrs.html)

1999.

- **Very Important Visitor** (VIV), Institute for Mathematics and its Applications, University of Minnesota.

1998

- **Cátedra Patrimonial**, Nacional Autónoma de Mexico (UNAM): Instituto de Investigaciones en Matemáticas Aplicadas y Sistemas (IIMAS).
- **First Distinguished Lecture Series Speaker**, Department of Mathematics, Memphis State University.

1997

- **Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring** National Science Foundation and the Office of the President of the United States.
http://www.news.cornell.edu/releases/Sept97/Castillo-Chavez_honor.lgk.html
<http://www.news.cornell.edu/Chronicle/97/9.18.97/Castillo-Chavez.html>
http://www.nsf.gov/news/news_summ.jsp?cntn_id=102827&org=OPP

1992-97

- **Presidential Faculty Fellowship Award**, National Science Foundation and the Office of the President of the United States.
<http://www.nsf.gov/pubs/stis1991/nsf91103/nsf91103.txt>).

1996

- **Profesor Plenario**, Universidad de Belgrano, Buenos Aires, Argentina, (highest academic honorary title given by Universidad de Belgrano).

1995-96

- **Board of Directors**, Society for the Advancement of Chicanos and Native Americans in Science (SACNAS).

1994-97

- **Board of Directors**, Society for Mathematical Biology.

1992-95

- **President, Northeast Chapter**, Society for the Advancement of Chicanos and Native Americans in Science (SACNAS).

1993-94

- **Fellow**, Princeton University.
- **Board of Directors**, Asociación Latino Americana de Biomatemáticas (ALAB).
- **Member**, Isaac Newton Institute for Mathematical Sciences, University of Cambridge, England (1/93-6/93).
- **Harry S. Kieval Distinguished Lecture Series-Speaker**, Humboldt State University (11/4/93).

1992

- **Distinguished Alumni**, Escuela Primaria 21-012-68-VI-X, Estado de México, (México City, 12/15/92).
- **Distinguished Alumni**, Escuela Secundaria Diurna No. 15, Albert Einstein, (México City, 12/11/92).
- **Distinguished Alumni**, Centro de Estudios Científicos y Tecnológicos No. 2, Miguel Bernard, del Instituto Politécnico Nacional, (México City, 12/9/92).
- **Recognition from the Honorable Mexico City Council** for contributions to science (México City, 12/14/92).
- **Recognition from the Honorable Council, Venustiano Carranza's District**, for contributions to the mathematical sciences. (México City, 12/14/92).

- **Distinguished Minority Visiting Scholar**, University of California-Davis (4/23-27/92).
- **Co-chair, Ford Foundation Planning Committee**, 1992 Annual Conference, National Academy of Sciences, Washington, DC

1988-91

- **Recipient**, MIR-NSF Award.

1990

- **Hollistier-Stier Distinguished Lecture Series (Speaker)**, Washington State University (3/5/90).

1987-88

- **Ford Foundation Postdoctoral Fellowship**, National Research Council.

1984

- **Advanced Opportunity Fellowship**, University of Wisconsin-Madison.

CURRENT RESEARCH FUNDING

- **Castillo-Chavez C (PI)**, DOD-National Security Agency: Theoretical Biology Institute/ Institute for Strengthening the Understanding of Mathematics. 5/1/2009-4/30/2011
- **Castillo-Chavez C (PI)**, National Science Foundation; EMSW21-MCTP: Mentorship through Research: A Model for an Emerging Urban American University, 8/1/2008-7/31/2011
- **Castillo-Chavez C (PI)**, Sloan (Alfred P.) Foundation; ASU-Sloan National Pipeline Program in the Mathematical and Statistical Sciences, 5/1/2009-4/30/2011
- **Rodriguez, A (PI)** NSF-Directorate for Education & Human Resources (EHR) (0728695)
"Academic and Professional Development for Upper-Division Computer Science, Engineering, and Mathematics Students -II: Transition to Research..." **Castillo-Chavez, C (Co-PI)**, 9/1/2007-8/31/2011
- **Rodriguez, A (PI)** NSF-Directorate for Education & Human Resources (EHR) (0807134)
"Academic & Professional Development for Lower-Division Computer Science, Engineering, and Mathematics Students: Transition to Upper-Division..." **Castillo-Chavez, C (Co-PI)**; 8/1/2008-7/31/2012
- **Garcia, T (PI)** National Science Foundation Western Alliance to Expand Student Opportunities (WAESO) Louis Stokes Alliances for Minority Participation (LSAMP) Phase IV cooperative agreement. **C. Castillo-Chavez, C. (Co-PI)** (11/1/2006-10/31/2011)
- **Garcia, T (PI)**, National Science Foundation, WAESO LSAMP Bridge to the Doctorate (LSAMP-BD) Cohort VI; **Castillo-Chavez, C: (Co-Coordinator)**; (8/1/2008-07/31/2010).
- **Garcia, T (PI)**; National Science Foundation, WAESO LSAMP-BD Cohort V; **Castillo-Chavez, C. (Co-PI/Co-Coordinator)**; (8/1/2007-07/31/2009) supplement to LSAMP cooperative agreement
- **Jung R. (PI)**, National Science Foundation (SBE-051869) Catalyst: Center for Excellence in Adaptive Neuro-Biomechatronic Systems (CEANS); **Castillo-Chavez, C: Co-Investigator**, 08/15/05-01/31/09.
- **Garcia, T (PI)**, National Science Foundation, WAESO LSAMP Bridge to the Doctorate (LSAMP-BD) Cohort IV; **Castillo-Chavez, C: (Co-PI/Co-Coordinator)**; (8/1/2006-07/31/2008).
- **Castillo-Chavez C (PI)**, DOD-National Security Agency: Theoretical Biology Institute Research Program for Undergraduates, 03/12/07-03/11/09
- **Garcia, T (PI)**; National Science Foundation, WAESO LSAMP-BD Cohort III; **C. Castillo-Chavez, C. (Co-Coordinator)**; (8/1/2005-07/31/2007) supplement to LSAMP cooperative agreement
- **Garcia, T (PI)**; National Science Foundation, WAESO LSAMP-BD Cohort II; **C. Castillo-Chavez, C. (Co-Coordinator)**; (8/1/2004-07/31/2006) supplement to LSAMP cooperative agreement
- **Garcia, T (PI)**; National Science Foundation, WAESO LSAMP Bridge to Teaching (LSAMP-BT) Pilot Cohort I; **Castillo-Chavez, C. (Co-PI/Co-Coordinator)**; (7/01/2007-6/30/2009).

- **Garcia, T (PI):** [National Science Foundation](#), WAESO LSAMP-BD Cohort I; **C. Castillo-Chavez, C. (Co-Coordinator);** (8/1/2004-07/31/2006) supplement to LSAMP cooperative agreement
- **Lant, T (PI)** “Spatial Analysis And Integrated Visualization Of Factors Contributing To The Transmission Of West Nile Virus In Arizona”, [Arizona Department of Health Services](#); 9/15/2005-2/15/2006. **Castillo-Chavez, C (Co-PI)**
- **Castillo-Chavez, C. (PI)** [Sloan \(Alfred P.\) Foundation](#), “*Sloan National Pipeline Program in the Mathematical and Statistical Sciences*” 07/01/05-06/30/08.
- **Anderson-Rowland, M (PI);** [National Science Foundation](#) (# 0610631); *Academic and Professional Development for Upper Division Computer Science, Engineering, and Mathematics Students* 7/01/2006-6/30/2010; **Castillo-Chavez, C. (Co-PI).**
- **Castillo-Chavez, C. (PI)** [National Security Agency](#); *Mathematical and Theoretical Biology Institute Research Program for Undergraduates*. 03/12/06-03/11/07.
- **McHenry, A (PI)** [DOD-National Science Foundation](#) (0450137); *MGE@MSA AGEP Phase II*; Castillo-Chavez, C: **(Co-PI)**, 03/01/05-02/28/10.
- **Castillo-Chavez, C (PI);** [National Science Foundation](#) (DMS-0502349); EMSW21-MCTP: Mentorship Through Research: A Model for an Emerging Urban American University; 05/01/05-07/31/08.
- **Castillo-Chavez (PI);** [National Security Agency](#) (H98230-05-1-0097); *Mathematical and Theoretical Biology Institute Research Program for Undergraduates*, 04/25/05-04/24/06.
- **Castillo-Chavez (PI);** [National Science Foundation](#) (227630); *Presidential Awards for Excellence in Science, Mathematics and Engineering Mentoring: SUMS Institute*. 03/17/03-03/16/05.
- **Castillo-Chavez (PI);** ASU Project: “[Ecosystem Models of Alcohol-Related Behavior](#)” Funded by HHS-NIH-PACIFIC, Institute for Research & Evaluation: 9/30-04-3/31-07.
- **Kuang Y, (PI):** ASU Project: [UBM: Interdisciplinary Training for Undergraduates in Biological and Mathematical Sciences](#) Funded by NSF, DEB-0436341; **Castillo-Chavez, C: (Co-PI)**; 5/15-05-5/14-10.
- **Rodriguez, A (PI):** ASU Project: [Academic and professional Development for Computer and Mathematics Students: Transitioning](#), NSF: DEB-0422447; **Castillo-Chavez, C: (Co-PI)**; 8/15-04-8/14-08.
- **Castillo-Chavez (PI):** ASU Project: [Mathematical & Theoretical Biology Research Program for Undergraduates](#), Funded by NSF; 6/5-04-7/31-05.
- **Castillo-Chavez (PI):** ASU Project: [Mathematical & Theoretical Biology Institute: Undergraduate Travel to Conferences](#) Funded by NSF; 6/27-02-6/26-06.
- **Castillo-Chavez (PI):** ASU Project: [Cornell-Sloan National Pipeline Program in the Mathematical Sciences](#), Funded by Sloan; 3/12-04-3/11-05.
- **Suslov, S, (PI):** ASU Project: [International School on Mathematical Modeling of Nonlinear Phenomena](#), Funded by NSF; DEB-0430752; **Castillo-Chavez, C: (Co-PI)**; 9/14-04-8/31/05.
- **Castillo-Chavez (PI):** ASU Project: [Mathematical & Theoretical Biology Research Program for Undergraduates](#), Funded by NSA; 7/1-01-3/30-04.

FUNDED RESEARCH TRANSFERRED to ASU --Carlos Castillo Chavez, PI

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| 7/01-01-4/30-04 | PI: Cornell Project: Cornell-Sloan National Pipeline Program in the Mathematical Sciences , Funded by Sloan. |
| 8/01-02-7/31/05 | PI: Cornell Project: Mathematical & Theoretical Biology Research Program for Undergraduates ; Funded by NSF; DMS-0205985.. |
| 6/27-02-6/26-06 | PI: ASU Project: Mathematical & Theoretical Biology Institute: Undergraduate Travel to Conferences Funded by NSF. |
| <u>Cornell University: Past Funding, Carlos Castillo Chavez, PI</u> | |
| 3/12/-02-03/11-03 | PI: ASU Project: Mathematical & Theoretical Biology Research Program for Undergraduates , Funded by NSA |

10/01-00-10/31-04	PI: Cornell Project: Minority Ph.D. Recruitment in the Department Of Biometrics. Funded by Sloan.
4/01/97-7/31/04	PI: Cornell Project: Increasing the Number of Under-Represented Minorities at Cornell. Funded by Sloan.
8/01-02-7/31/05	PI: Cornell Project: Mathematical & Theoretical Biology Research Program for Undergraduates; Funded by NSF; DMS-9977919.
6/01/97-5/31/03	PI: Cornell Project: Evolution from DNA to the Organism: The Interface Between Evolutionary Biology and Mathematics; Funded by NSF; DEB-9602229.
11/01/01-3/31/02	PI: Cornell Project: Spatial Distribution & Food web Impacts of <i>Echinogammarus Ischnus</i> an Invasive Benthic Crustacean. Funded by GRT LKS RES; ID: 2-28-02; (with Nancy Tisch).
6/01/02-5/31/07	PI: Cornell Project: The Central New York to Puerto Rico-Mayaguez (CNY-PR) Alliance for Graduate; Funded by NSF; DEB-9602229.
8/00-11/00-11/01	PI, Graduate Support for Under-represented Minorities by the Sloan Foundation PI, "Mathematical & Theoretical Biology Research Program for Undergraduates." Funded by National Security Agency , MDA904-00-1-0006
11/99-11/00	PI, "Mathematical & Theoretical Biology Research Program for Undergraduates." Funded by National Security Agency , MDA904-00-1-0006
8/99-7/02	PI, "Mathematical & Theoretical Biology Research Program for Undergraduates." Funded by National Science Foundation , DMS-9977919
1/99-1/00	PI, "Mathematical and Theoretical Biology Research Program for Undergraduates." Funded by National Security Agency , MDA904-99-1-0076
04/97-7/00	PI, Graduate Support for Under-represented Minorities by the Sloan Foundation.
06/97-5/02	PI, Sara Via (Co-PI), NSF-training grant in Theoretical and Computational Biology. "Evolution from DNA to the organism: the interface between evolutionary biology and the mathematical sciences," RTG; 06/97-05/03. Funded by the National Science Foundation #DEB 9602229.
1/97-1/99	PI, "Mathematical & Theoretical Biology Research Programs for Undergraduates." Funded by National Security Agency , MDA904-97-1-0074.
5/96-4/99	PI, "SACNAS Mathematical Sciences Summer Institute." Funded by National Science Foundation , Project # 29582, DMS-9600027 (Co-PIs: Martha Contreras and José Escobar),
12/95-12/96	PI "SACNAS Mathematical Sciences Summer Institute." Funded by National Security Agency , Project #26930; MDA904-96-1-0032
4/93-9/97	PI "Contact structures in biology and their application to food web dynamics and vector-transmitted diseases," Hatch Project #NYC 151-412, Funded by the State of NY .
6/92-5/97	Co-PI (J. Guckenheimer and Sara Via) "The dynamics of heterogeneous ecological and evolutionary systems," NSF training grant in Theoretical and Computational Biology. Pre-IGERT RTG, Grant # BIR-9113307, Funded by the National Science Foundation .
1992-1997	PI, Presidential Faculty Fellow Award (NSF and the Office of the President of the USA), "Analysis of interactions among organisms." Grant #DEB-925370: Funded by the National Science Foundation .
3/91 & 3/93	PI, "Social/Sexual Mixing, Pair Formation, and Disease Dynamics," Grant for Advanced Computing Resources. Ninety-five units of supercomputing time provided by the Cornell Theory Center and the National Science Foundation . Supplement to N SF Grant #DMS-8906580.

- 1991 PI, "Time scales in the simulation of vector transmitted diseases," NSF Grants for Research and Education in Science and Engineering. Supplement to Grant #DMS-8906580 (MRI-Award), Funded by the National Science Foundation.
- 7/90-6/92 PI, "Models for the dynamics of infectious diseases and social interactions with applications to AIDS epidemiology." Funded by the Applied Mathematics and Population Biology Programs of the National Science Foundation: Grant # DMS-8906580 (MRI-Award).
- 9/89-6/92 PI, "Sexual behavior and HIV-seroincidence estimators," National Institute of Allergy and Infectious Diseases. NIAID Grant # R01 A129178-01 and A129178-02 (George Casella, co-PI).
- 1/89-9/93 PI, "The role of social mixing in the dynamics of HIV/AIDS." Hatch Project NYC 151-409, funded by the State of NY.

PARTICIPANT in FUNDED PROJECTS (Cornell University):

- 1998-2003 Collaborator: "IGERT," Funded by the National Science Foundation (Steve Strogatz, PI); Research-Training Grant on Nonlinear Dynamics.
- 1996-1999 Collaborator: "MIRT at Cornell University," Funded by Dept. of Health and Human Services (Eloy Rodriguez, PI). Supports undergraduate and graduate Minority students to conduct research in Latin America and Africa.
- 1997-2000 Intel (Don Randel, PI), Grant to use the most modern Intel Technology. I receive two of the most advanced PC-computers (latest INTEL chips) and software. Funded by INTEL.
- 1996-1998 Consultant: "GAIA: A Multi-Media Tool for Natural Resources Management and Environmental Education," Funded by European Commission, DG XIII, under INCO-DC, (Kurt Fedre, Director, Angel F. Capurro, PI).
- 1995-1997 Consultant: "Caracterización del diametro de la reacción a la PPD, 1995-1997," Funded by Fundación Roemmers (Sara Debanne and Angel Capurro, Jorge Pilleu, Co-PI's).
- 1991-2000 Core faculty member, NIEHS-training grant, "Training in Environmental Statistics," George Casella.

MENTORSHIP ACTIVITIES:

Current Post-Doctoral or Research Associates:

1. Marco Herrera (2008-09), Mathematical, Computational & Modeling Sciences Center, ASU (primary mentor Sharon Crooke)
2. Sunmi Lee (2008-09), School of Human Evolution and Social Change and Mathematical, Computational & Modeling Sciences Center, ASU (primary mentor, Gerardo Chowell)

Past Post-Doctoral Students and Current Status:

1. Xiaohong Wang (2005-2008), Research Assistant Professor, ASU (updated 2009)
2. Joaquin Rivera-Cruz (2007-2008), Assistant Professor of Mathematics, Colgate University, NY (updated 2009)
3. Luis Gordillo (2004-2007), Assistant Professor of Mathematics, University of Puerto Rico, Mayaguez (updated 2007)
4. Laura Jones (2002-2003), Postdoctoral Student, Position in Dept. of Ecology and Evolutionary Biology, Cornell University (updated 2005)
5. Baojun Song (2002-2003), Associate Professor, Montclair State University (NJ) (updated 2009)
6. Nancy Tisch (1998-2002), Lecturer, BSCB Department, Cornell University (updated 2006)
7. Juan Aparicio (1999-2000), Assistant Professor, INENCO, Universidad Nacional de Salta, Argentina, www.suagm.edu/paginas/japaricio (updated 2009)

8. Chiangmei Liu (1996-1998), Reval.Com, NJ (updated 2009)
9. Zhilan Feng (1994-1996), Professor, Mathematics Department, Purdue University, Indiana (updated 2006)
10. Jorge X. Velasco-Hernandez (1991-1992, 1994-1996), Instituto Mexicano del Petroleo (updated 2005)
11. Samuel Fridman (1991-1994), personal business (updated 2002)
12. Dr. Wenzhang Huang (1993-1994), Professor, University of Alabama-Huntsville (updated 2007)
13. Karen Heiderich (1992-1993), physics instructor, Kwantlen College, Canada (updated 2002)
14. Angel Capurro (1992-1993), deceased (2000), Researcher, University of Belgrano, Argentina
15. Jeffrey Palmer (1990-1991), Professor of Mathematics, South Dakota State University (updated 2009).

Research Professionals or Research Associates SUPERVISED and supported from long-term funded projects:

1. Steve Wirkus (2003), Associate Professor of Mathematics, ASU, 2008 (updated 2009)
2. Lind Gao (2004-2006), Professor of Mathematics, North Central College, IL (updated 2009)
3. Armando Arciniega (2004), Assistant Professor of Mathematics, UT-San Antonio.
4. Abdul Aziz Yakubu (1998-2002), Professor and Chair, Mathematics Department, Howard University (updated 2009)
5. Carlos Hernandez Suarez (1996-2002), Dean Faculty of Science (updated 2006)
6. Baojun Song (1996-1997), *Associate Professor, Montclair State University (NJ)* (updated 2009)
7. Wenxiong Xu (1996), Associate Professor, Xian Jiaotong University, China
8. Jia Li (1993), Professor, University Alabama-Huntsville, Chair Mathematics Department (updated 2009)
9. Steve Blythe (1990-1991), Research Associate, Senior Lecturer, University of Strathclyde, Glasgow, Scotland (updated 1998)

PhD STUDENTS:

1. Anuj Mubayi, Ph.D. in Applied Mathematics in the Life and Social Sciences, ASU, 2008, Postdoctoral Student, University of Texas, Arlington.
2. Karen Rios-Soto, Ph.D. in Biometry, 2008, Cornell University; Assistant Professor of Mathematics, University of Puerto Rico at Mayaguez.
3. Karyn Sutton, Ph.D. Mathematics, 2008, ASU; Postdoctoral Researcher, NC State
4. Mustafa Erdem, Ph.D. Mathematics, 2007, ASU; Military Service, Turkey 2008.
5. Eunha (Alicia) Shims, Ph.D. Mathematics, 2007, ASU; Postdoctoral Researcher, Yale University
6. Fabio Pena Sanchez, Biometry, 2007, Cornell University; Management Position at American Express.
7. Elmer de La Pava Salgado, Ph.D. Theoretical Biology, Universidad del Valle Colombia (February 2006), Profesor Universidad Autónoma de Occidente, Cali, Colombia (updated December 2006)
8. Steve Tennenbaum, Ph.D. Ecology and Evolutionary Biology, 2006, Cornell University, Theoretical Biologist at Innovative Emergency, Management Inc., Maryland, US (updated December 06)
9. Miriam Nuno, Biometry, 2005, Cornell University; Senior Biostatistician Department of Neurosurgery Cedars-Sinai Medical Center (updated 2009)
10. Gerardo Chowell-Puente, Biometry, 2005, Cornell University; Assistant Professor, Arizona State University (updated January 09).
11. Ariel Cintron Arias, 2006, Cornell University; Assistant Professor of Mathematics, Eastern Tennessee University (updated 2009)
12. Baojun Song 2002, Cornell University; Associate Professor, Montclair State University (updated 2009)
13. Carlos M. Hernandez (Ph. D. Biometry, Cornell University, 8/97), Director, Facultad de Ciencias, Universidad de Colima, Mexico (updated 2006)

14. Shu-Fang Hsu Schmitz (Ph.D. Biometry, Cornell University, 12/93), Head statistics unit, Swiss Institute of Applied Cancer Research and lecturer, Institute of Mathematical Statistics, University of Bern, Switzerland (updated 2007)
15. Patricia Himschoot (Ph.D. in Ecology, Universidad de Buenos Aires, Facultad de Ciencias Naturales, Argentina, 12/93), Especialista Sectorial en Información Ambiental Proyecto "Protección Ambiental del Río de la Plata y su Frente Marítimo," Montevideo, Uruguay (updated 2004)

Chair or Co-Chair MS/MA/MNS STUDENTS:

1. Loan Nguyen, ASU, Mathematics, 2009 (co-chair, Yang Kuang) (applying PhD in Biostatistics)
2. Ricardo Cordero, ASU, Mathematics, 2009 (co-chair, Sergei Suslov)—working on Ph.D. in Applied Mathematics in the Life and Social Sciences or AMLSS Ph.D.
3. Dori Luli, MA, ASU, Mathematics, 2008, working on AMLSS Ph.D.
4. Daniel Rios-Doria, ASU, Mathematics, 2008, working on AMLSS Ph.D.
5. Jose Vega, MNS, ASU, Mathematics, August 2008, working on AMLSS Ph.D.
6. Kamal Barley, MNS, ASU, Mathematics, August 2008, working on AMLSS Ph.D.
7. Asela Acosta, MNS, ASU, Mathematics, August 2008 (teaching mathematics at HS in Texas)
8. Raquel Lopez, MS, ASU, Mathematics, May 2008 (co-chair, Sergei Suslov), working on AMLSS Ph.D.
9. Genevieve Toutain, MS, ASU, Mathematics, May of 2008 (Ph.D. Boston University)
10. Alicia Urdapilleta, MS, ASU, Mathematics, December 2007; working on AMLSS Ph.D.
11. Chad Gonzalez, MS, ASU, Mathematics, December 2008 (American Express)
12. Reynaldo Castro, MA, ASU, Mathematics, 2008, Working on AMLSS Ph.D.
13. Azra Panjwani, MA, ASU, Mathematics, 2007 (Co-chair, Priscilla Greenwood)
14. Danielle Robbins, MS, ASU, Mathematics, May 2007 (Co-chair, Sharon Crook); working on Ph.D. student at North Carolina State
15. Jose Almora, MS, ASU, Mathematics, May 2007 (American Express)
16. Daniel Romero, MA, ASU, Mathematics: August 2007 (co-chair, Svetlana Roudenko), working on Ph.D., Cornell University
17. Griselle Torres-Garcia, ASU, Mathematics, 2007, working on AMLSS Ph.D.
18. Efrat Barzohar, MA, ASU, Mathematics, December 2006 (Returned to Israel)
19. Arlene Evangelista, MS Mathematics: August 2006 (Michael Oehrtman & Carlos Castillo-Chavez, co-chairs); Working on AMLSS Ph.D.
20. Anthony Billups, MA, ASU, Mathematics, August 2006, working at Global Health Incorporated, Department of Account Management, NY, City (co-chair Priscilla Greenwood)
21. Edgar Diaz, MA, ASU, Mathematics, 2006, working on AMLSS Ph.D.
22. Karyn Sutton, MS, ASU, in Mathematics, ASU May 2005. Postdoctoral Researcher at North Carolina State
23. Tongxiao Zhang (MS Biometry, Cornell University, 5/99), Completed PhD in Rural Sociology at Cornell University, Private Demography Company, Michigan
24. Craig Borkowf (MS Statistics, Cornell University, 5/94). Completed PhD at NIH, works at CDC.

External PhD Committees or External Ph.D. Examiner (names and dates):

1. Gloria Crispino O'Connell, Institute of Technology, Tallaght, Science Dublin, Ireland (Applied Mathematics, 6/7/00), Lecturer, Institute of Technology, Tallaght, Science Dublin, Ireland
2. Shurron M. Farmer, Howard University (Applied Mathematics, 5/01), Lecturer, Department of Mathematics, Howard University
3. Gudelia Rangel, Instituto Nacional de Salud, Cuernavaca, Mexico, 2005; chair of Ph.D. examination.

CHAIR, CURRENT GRADUATE STUDENTS:

1. Kevin Flores, Ph.D. AMLSS⁵—expected: August 2009 (co-chair, Yang Kuang)

⁵ Applied Mathematics in the Life and Social Sciences

2. Edgar Diaz, Ph.D. AMLSS—expected: August 2010
3. David Murillo, Ph.D. AMLSS—expected: August 2011 (co-chair, John Anderies).
4. Griselle Torres-Garcia, Ph.D. AMLSS—expected: August 2010 (co-chair Hal Smith)
5. Arlene Evangelista, Ph.D. AMLSS—expected: August 2011 (co-chair, Michael Oehrtman)
6. Reynaldo Castro, Ph.D. AMLSS, —expected: August 2011
7. Carlos Torre, Ph.D. AMLSS, —expected: August 2010
8. Naala Brewer, Ph.D. AMLSS—expected: August 2011
9. Daniel Rios-Doria, Ph.D. AMLSS—expected: August 2010
10. Irina Kareva, Ph.D. AMLSS—expected: August 2012

ASU Ph.D. Committees' Membership:

1. Erwin Suazo, Mathematics, Arizona State University (Ph.D. December 2009)
2. Antonio Rubio, Mathematics, Arizona State University (Ph.D. August 2009)
3. Mini Puthayathu Kurian, Mathematics, Arizona State University (Ph.D. 2009)
4. David Tello, Applied Mathematics, Arizona State University (Ph.D. August 2010)
5. Ana Lage Ramirez, Mathematics, Arizona State University (Ph.D. May 2010)
6. Bruce Rogers, Mathematics, Arizona State University (Ph.D. August 2009)
7. Mudassar Imran, Mathematics, Arizona State University (Ph.D. December 2006).
8. Jiaxu Li, Mathematics, Arizona State University (PH.D. December 2004); Assistant Professor, The University of Louisville
9. Tim Lant, Mathematics, Arizona State University (PH.D. December 2004). Research Assistant Professor, ASU (2006)
10. Tufail Malik, Mathematics, Arizona State University, 2007, Postdoctoral Position, Canada
11. Abdessamad Tridane, Mathematics, Arizona State University (Ph.D. December 2006), Assistant Professor of Mathematics, ASU West
12. Roxana Lopez-Cruz, Mathematics, Arizona State University (Ph.D. December 2006), Professor, University in Peru.

ASU MS Committees' Membership:

1. Angela Ortiz: Mathematics, Arizona State University (MS August 2006)
2. David Segura: Statistics, Arizona State University (MS December 2006)

Cornell University GRADUATE MINORS (Ph.D. or MS Committees at Cornell):

1. Janet Best, (Applied Mathematics), Ph.D., 8/2003. Postdoctoral Position at Mathematical Biology Institute, 2003-2006 (Ohio). Member of Ph.D. committee; Assistant Professor, Ohio State University (2007-)
2. Denis A. Shah (Biometry, 08/01), Ph.D. in Plant Pathology, 08/01. Member of Ph.D. committee.
3. Colleen T. Webb (Biometry, 08/01), Ph.D. in Ecology and Evolutionary Biology, 08/01. Postdoctoral Position, Princeton, Assistant Professor of Mathematics, Colorado State University (2004-). Member of Ph.D. committee.
4. Mary Fitzpatrick, (5/95), Industrial & Labor Relations: M.S. in 5/95. Member of MS committee.
5. Clement Ahiadeke (Epidemiology: 3/96), Ph.D., Rural Sociology, Assistant Professor, Institute of Statistical, Social and Economic Research (ISSER), University of Ghana, Legon, Africa. Member of Ph.D. committee.
6. Ian A. Kennedy (Minor in Applied Mathematics, 5/95); First position, postdoctoral position, USDA. Member of Ph.D. committee.
7. Jay S. Ross (Epidemiology, 5/94). Ph.D. in Nutritional Sciences; First position, research position, non-profit environmental organization, Washington, D.C. Member of Ph.D. committee.
8. Dale S. Rothman (Biometry, 12/92), PhD in Agricultural Economics; First position, researcher at ICIS Maastricht University, the Netherlands. Member of Ph.D. committee.

ASU Sloan Fellows Advisees (Ph.D. level—one year fellowships typically after the pass qualifiers):

1. Alicia Urdapilleta, Graduate Student, AMLSS, ASU (Mexican American)
2. Chad Gonzales, Graduate Student, AMLSS, ASU (Mexican American)
3. Kevin Flores, Graduate Student, AMLSS, ASU (Mexican-Pilipino American)
4. David Murillo, Graduate Student, AMLSS, ASU (Mexican-Vietnamese American)
5. Reynaldo Castro, Graduate Student, AMLSS, ASU (Puerto Rican)
6. Angela Ortiz, Graduate Student, AMLSS, ASU (Puerto Rican)
7. Griselle Torres-Garcia, Graduate Student, AMLSS, ASU (Puerto Rican)
8. Alejandra Alvarado, Graduate Student, Mathematics, ASU; Ph.D. in 2009 (Mexican American)
9. Rachel Wallington, Graduate Student, Mathematics, ASU; Ph.D. in 2009 (Latina)
10. Antonio Rubio, Graduate Student, Mathematics, ASU; Ph.D. 2009 (Mexican American)
11. Guillermo Mendez, Graduate Student, Statistic, ASU; Ph.D. in 2008 (Mexican American)
12. Arlene Evangelista, Graduate Student, AMLSS, ASU (Mexican-American)
13. David Tello, Graduate Student, AMLSS, ASU (Peruvian American)
14. Cristi Darley-Guevara, Graduate Student, Mathematics, ASU (Colombian American)
15. Daniel Rios-Doria, Graduate Student, AMLSS, ASU (Peruvian American)
16. Kehinde Salau, Graduate Student, AMLSS, ASU (African American)
17. Ricardo Cordero, Graduate Student, AMLSS, ASU (Puerto Rican)
18. Jose Vega, Graduate Student, AMLSS, ASU (Puerto Rican)
19. Raquel Lopez, Graduate Student, AMLSS, ASU (Mexican American)
20. Edme Soho, Graduate Student, AMLSS, ASU (African American)
21. Emmanuel Morales, Graduate Student, AMLSS, ASU (Puerto Rican)
22. Alhaji Cheriff, Graduate Student, AMLSS, ASU (African American)
23. Carl Ballard, Graduate Student, AMLSS, ASU (African American)

Cornell University Sloan Fellows Advisees (Ph.D. level):

1. Erika Camacho, (applied mathematics, 97), Ph.D. May 2003, Postdoctoral Position at LANL (2003-2005), Assistant Professor of Mathematics, Loyola Marymount, CA, 2005-08. (Mexican American); Assistant Professor of Applied Mathematics, ASU 2008-
2. Johnny Guzman (applied mathematics, 99), Ph.D. May 2005, NSF Postdoctoral Fellowship; University of Minnesota (Mexican-American); Assistant Professor of Applied Mathematics, Brown University, 2008-
3. Jesus Rodriguez (applied mathematics, 99), Ph.D. August 2005, Postdoctoral Fellowship, SAMSI, 2005-07 (Puerto Rican/Cuban); Assistant Professor of Mathematics, Rutgers, University, 2007-
4. Ariel Cintron Arias (applied Mathematics, 99), Ph.D. August 2006 (Puerto Rican/Costa Rican). Postdoctoral Fellowship, SAMSI, 2006-08 (Puerto Rican). Assistant Professor of Mathematics, East Tennessee State University, 2009
5. Jaime Barrera (applied mathematics, 98), Ph.D. Expected in 2009 (Mexican American), Assistant Professor of Mathematics, Hobart and Williams Smith College, 2007
6. Daniel Wiley (applied mathematics, 01), Ph.D. December 2006 (African American), Postdoctoral Fellowship, MSRI, Spring 2007; Postdoctoral Position at the University of Maryland, 2007- ; Researcher DOD 2008
7. Lisa Denogean (biometrics, 99-02; statistics 02-), Ph.D. August 2005 (Mexican-American), Postdoctoral Fellowship, SAMSI, 2005-07 (Mexican American); Statistical Genetics and Biomarkers group, Bristol-Myers Squibb, Princeton, NJ
8. Miriam Nuno (biometrics, 00), Ph.D. May 2005 (Mexican-American), Yerby Postdoctoral Research Fellow, Harvard School of Public Health (2005-07); Postdoctoral Position UCLA (2007-08), Senior Biostatistician Department of Neurosurgery Cedars-Sinai Medical Center
9. Fabio Sanchez (biometrics, 01), Ph.D. December 2006 (Puerto Rican). Manager Credit Credit Strategy, American Express (2006-)

10. Carlos Torre (theoretical and applied mechanics, Fall 02), MS December 2006. Transferred to ASU's graduate school—field applied Mathematics (Peruvian-American)
11. Emilia Huerta-Sanchez (applied mathematics, Fall 02), Ph.D. August 2007 (Mexican-American). Postdoctoral Position, Statistics, UC Berkeley 2008-
12. Karen Rios-Soto (biometrics, Fall 02), Ph. D. August 2008 (Puerto Rican). Assistant Professor of Mathematics, University of Puerto Rico, Mayaguez
13. Damaris Santana (biometrics, on leave with Ph.D. advisor, 98)— Statistics Ph.D. 2005 (Puerto Rican), University of Florida. Associate Professor of Statistics, University of Puerto Rico, Mayaguez, 2007-).
14. Julio Villarreal (biometrics, on leave, 98)—completed MS in 1999 (Mexican American).

Undergraduate Honors Thesis:

Karen Chow's Honors Thesis advisor (Nosocomial Infection Dynamics), BSE, Barrett Honors College 5/2007

TEACHING AND RELATED RESPONSIBILITIES:

Courses taught, co-taught at ASU:

- AML⁶ 610 --- Topics in Applied Mathematics
- Math 499 --- Introduction to Mathematical Biology
- MAT 194, with Prof. Armando Rodriguez (engineering)
- 598 MTE—course for high school teachers—with Xiaohong Wang
- MAT 194 (Mathematical Biology for High School/SUMS students), with Cintron-Arias and X Wang
- AML 591 – Seminar
- AML 590 – Reading & conf
- AML 591 – Seminar (mat/bio)
- AML 792 – Research (Priscilla)
- AML 799 – Dissertation
- AML 790 – Reading & conference
- AML 612 – Topics in applied math for the life & soc sciences (co-taught with Chowell)

Courses taught at Cornell University:

- Biometry 694; Graduate Special Topics in Biometry: Computational Biology Seminar
- TAM 310; Advanced Engineering Analysis I (undergraduate)
- Biometry 694; Graduate Special Topics in Biometry: Dispersal and Diapause in two-patch systems.
- Biometry 694; Graduate Special Topics in Biometry: Mathematical Epidemiology
- Biometry 694; Graduate Special Topics in Biometry: Mathematical Methods in Ecology and Evolutionary Biology
- Biometry 662; Mathematical Ecology

⁶ Courses in Applied Mathematics in the Life and Social Sciences

- Biometry 651; Mathematical Population Studies Modeling
- Biometry 451; Mathematical Modeling of Populations (undergraduate)
- Biometry 417; Matrix Algebra (undergraduate)
- Biometry 215; Introduction to Statistical Methods (undergraduate)
- Biometry 102; Introduction to Biometry (undergraduate)
- Biometry 101; Introduction to Biometry (undergraduate)
- Biometry 90; Introduction to Biometry for High School Students (CIMEP)

Group Advising Activities:

2005-

- Co-Faculty Advisor, SIAM Student Chapter, ASU

2004-

- Co-Faculty Advisor: MAES (Mexican American Engineers & Scientists) at ASU.
(<http://www.asu.edu/clubs/maes/member2-3.htm>)

2004-2009

- Faculty Advisor: Field Hockey Club @ ASU. (<http://www.asu.edu/clubs/fieldhockey/>)

2004

- Faculty Advisor: Sun Devils Scientific Reading Club, ASU

2001-2002

- Faculty Advisor: Society for Hispanic and Professional Engineers (SHPE), Cornell University Chapter

2001-2002

- Faculty Mentor to Junior Faculty: Woodrow Wilson National Fellow Ricardo Cortez, Tulane University.

CURRENT (ASU) Department, Programs and Schools Memberships:

- School of Human Evolution and Social Change
- Mathematical, Computational and Modeling Sciences Center
- Mathematics and Statistics Department
- Affiliate Position in School of Life Sciences
- Affiliate Position in CePoD
- Affiliate Position in Center for Social Dynamics and Complexity

ASU GRADUATE FIELD MEMBERSHIPS:

- Applied Mathematics in Life and Social Sciences
- Mathematics
- Mathematics Education
- Environmental Life Sciences Program

Cornell University GRADUATE FIELD MEMBERSHIPS (1988-2003):

- Applied Mathematics
- Biometry
- Ecology & Evolutionary Biology
- Epidemiology
- Latin American Studies
- Statistics
- Theoretical and Applied Mechanics

SYNERGISTIC ACTIVITY:

Blackwell-Tapia Award and Conference

Castillo-Chavez' efforts resulted in the [establishment](#) of the *David Blackwell and Richard Tapia Distinguished Lecture Series* in 2000. The [David Blackwell and Richard Tapia Award](#)—an event that

currently rotates among all NSF-funded Mathematical Sciences Institutes—was established two years later under the leadership of Castillo-Chavez and [David Eisenbud](#).

PROFESSIONAL SOCIETIES:

- National Association of Mathematicians (NAM)
- American Association for the Advancement of Science (AAAS)
- The Society for the Advancement of Chicanos and Native Americans in Science (SACNAS).
- Society for Mathematical Biology (SMB)
- American Mathematical Society (AMS)
- Mathematical Association of America (MAA)
- Society for Industrial and Applied Mathematics (SIAM).
- Association of Women Mathematicians (AWM)
- Resource Modeling Association (RMA)
- Chicano Faculty Staff Association (ASU)
- Mexican American Engineers & Scientists (MAES)

CURRENT EDITORIAL BOARDS:

- SIAM NEWS (editorial board 2007-)
- Mathematical Biosciences and Engineering (MBE),
<http://kuang.la.asu.edu/MBEJournal/EditorialBoard.aspx> (editorial board 2004-2009)
- SIAM Journal on Dynamical Systems, (editorial board, 2003-2009)
- Electronic Journal of Differential Equations (<http://ejde.math.swt.edu/>) (editorial board 1993-)
- Natural Resource Modeling (<http://rmmc.eas.asu.edu/nrm/editors/editors.htm>) (2005-09)
- International Journal of Biomathematics (2007-present)
(<http://www.worldscinet.com/ijb/mkt/editorial.shtml>)

PAST EDITORIAL BOARDS

- Journal of Theoretical Biology (editorial board, 1995-2000; 2003-2006).
(http://www.elsevier.com/wps/find/journaleditorialboard.cws_home/622904/editorialboard#editorialboard)
- Frontiers in Applied Mathematics, Society for Industrial and Applied Mathematics (editorial board 1998-2006)
- Journal of Theoretical Biology (scientific advisory board, 2000-2003).
- SIAM Journal in Applied Mathematics, Society for Industrial and Applied Mathematics (1992-98)

Committee Appointments/Assignments 2002-2009

1. **UTSA**, Member of External Advisory Committee for Diversity and Academic Initiatives, 1/26/08 - 1/26/2009 (University of Texas at San Antonio).
2. **MIT**, Member Advisory Board for the Initiative on Faculty Race and Diversity, 12-18 months commitment 1/08-1/09
3. **Gemstones**, Advisory Board, 1/08/1/09, AIM, NSF Math Institute
4. **NIMBioS**, Advisory Board and Committee to Promote Diversity, 8/200/-8/2011, NSF Mathematics Institute
5. **Banff International Research Station (BIRS)**, Scientific Advisory Board, Canada, 8/200/-8/2009;
6. **Epidemiology and Mathematical Modeling of Staphylococcus Aureus**, Advisor Modeling Group, GlaxoSmithKline, 11/2008
7. **Santa Fe Institute**, Member, Advisory Committee on Minority Participation, 9/2008-9/2009,
8. **SIAM's Diversity Advisory Committee**, Chair, 2007-2010;
9. **The Ohio State Univ. Mathematical Biosciences Institute**; Diversity Committee, Chair, 1/2008-1/2009

10. **University of TN- Knoxville**, Scalable Computing and Leading Edge Innovative Technologies, **SCALE-IT**, IGERT, Member External Advisory Board, 2/2008-2/2009
11. **University of Florida**, IGERT External Advisory Board, 2/2008-2/2010
12. **SAMSI**, Member Director's Hiring Committee 4/2008-4/2010
13. **Texas Higher Education Coordinating Board**, Site Reviewer/TX-El Paso, proposed doctoral program in Computational Science 5/2008; Dr. Vanessa Davis (512) 427-6200
14. **ICIAM 2011 Mathematical Biology** Advisory Panel Member, 9/2008-9/2011
15. **SIAM Life Sciences Meeting**, 08-4-2008-08-07-2008; Member Organizing Committee
16. **University of Tennessee, Knoxville**, Member External Advisory Board, **PEER (Program for Excellence and Equity in Research)**: <http://web.utk.edu/~peer/external.htm>
17. **Co-Chair**, National Advisory Committee, SAMSI (Statistical and Applied Mathematical Sciences Institute (<http://www.samsi.info/>), Jan 1, 2004-December 31, 2009
18. **Elected to SIAM's Council (2006-2008)**
19. Member, David Blackwell and Richard Tapia Award Committee (2004, 2006, 2008, 2010)
20. **Ministry of Education & Science, Madrid, Spain**, Member, Evaluation's Committee for the Establishment of New Mathematics Institutes, 2/7/2008-2/10/2008.
21. **NSF Advisory Panel for the NSF Advancing Theory in Biology Competition**, Arlington, VA, 2008 5/27/2008- 5/30/2008
22. Member, National Research Council's Board of Higher Education and Workforce or [BHEW](http://www.bhew.org/) (2009-2011).
23. Member, **Mathematics Alignment Team**, a committee of Arizona Governor's P-20 Council (Governor's Council on Mathematics Education), 2007-2008
24. Member, **AZIMASE Committee (Tri-university/public sector Arizona Initiative in Math and Science Education)**, 2007.
25. **Elected to SIAM's Council (2006-2008)**
26. **Co-chair** 2006 SIAM annual meeting
27. **Committee on Committees**, AMS (02/01/05-01/31/07)
28. Member, Steering Committee of the International Congress of Applied Mathematics, Santiago de Chile, March 2006.
29. **Elected to SIAM's Council (2003-2005).**
30. **SIAM's Education's Committee (2003)**
31. Member, David Blackwell and Richard Tapia Award Committee (2002, 2004, 2006 and 2008)
32. Member, **Advisory Committee DIMACS Special Focus Program on "Computational and Mathematical Epidemiology" (2002-2007)**
33. **Member and Chair (2003)**, Liaison Committee of AAAS (American Association for the Advancement of Science) and AMS (American Mathematical Society), **Feb 1, 2002-January 31, 2004.**
34. Member, **Steering Committee** "Committee for the Review of the Evaluation Data on the Effectiveness of NSF-Supported and Commercially Generated Mathematics Curriculum Materials," National Academies, **2002-2004."**
35. **Co-Chair, Steering Committee**, NSF Math-Biology-Computer Science Meeting, March 27, 2002. NSF-NIH collaborative effort on Math-Biology Education.
36. Member, **Scientific Committee**, "Third International Conference on Mathematical Biology, Satellite Meeting for the International Congress of Mathematician, in Guilin, Guangxi Province, P.R. China, August 15-18, 2002.

Committee Appointments/Assignments 1988-2000

- Member, Human Resources Advisory Committee, Mathematical Sciences Research Institute, Berkeley, CA (1997-2000).
- Member, Scientific Committee, Cuarto Encuentro de Ecología Matemática, August 3-14, 1998, Valparaiso, Chile and Mendoza, Argentina.

- **Member**, Scientific Committee, Fifth International Conference Mathematical Population Dynamics, Zakopane, Poland, June 21 - 26, 1998.
- **Member**, Scientific Committee, The International Conference on Mathematical Biology, Hangzhou, China, May 26-29, 1997.
- **Member**, Scientific Committee: "Mathematical Models in Medical and Health Sciences," Department of Mathematics, Vanderbilt University, Nashville, TN, May 28-31, 1997.
- **Member**, Membership Committee: Society for Mathematical Biology (88-89).

ARIZONA STATE UNIVERSITY Committee Assignments:

2004-2009

1. **Member**, School of Human Evolution and Social Change, Personnel Committee, 2009-
2. **Member**, Regents Professors Committee (2006-08)
3. **Member**, Presidents Professors Committee (2006-08)
4. **Member**, Executive Committee for Computational Biosciences, ASU, <http://math.asu.edu/~cbs/faculty.html> (2006-)
5. **Member**, CLFSA AD HOC COMMITTEE ON BUILDING INSTITUTIONAL CAPACITY FOR FACULTY, STAFF, AND STUDENT DIVERSITY
6. **Member**, Faculty Achievement Awards Committee
7. **Member**, AZIMASE Committee ([Tri-university/public sector Arizona Initiative in Math and Science Education](#))
8. **Member**, Provost's Freshman STEM Improvement Committee, 2006-07
9. **Member**, South-West Borderlands Initiative Committee (2005-06)
10. **Member**, Search Committee, Chair Mathematics Department (2004-05).
11. **Member**, Search Committee in Computational Biology, Mathematics Department (2004-05).
12. **Member**, Search Committee, Epidemiology Position, Business School, (2004).
13. **Member**, Task Force, "School of Global Health & Appropriate Technology" (2004-05)
14. **Member**, Task Force on the Curriculum of the New American University (2004-05)
15. **Member**, Affirmative Action Committee, Mathematics Department (2004-05)
16. **Member**, Graduate Mentoring Committee, Mathematics Department.
17. **Member**, Review Committee, Mathematics Department (2004-05)
18. **Member**, Executive Committee Mathematical Biosciences Program (2004-) <http://lifesciences.asu.edu/compbiosci/text/faculty.htm#executive>

Cornell University Committee Assignments (1988-2003):

- **Faculty in Residence**, Cornell University, Clara Dickson Hall (2001-2002).
- **Faculty in Residence**, Cornell University, Balch Hall (1991-1994)
- **Member**, Steering Committee, Biological Statistics and Computational Biology Department, Cornell University (2000-2002).
- **Program Committee**, Center for Applied Math, 1996-1997.
- **Co-Chair**, Faculty Council of Representatives (Faculty Senate) Committee on Affirmative Action, 1994-1996.
- **Elected to Policy Committee**, College of Agricultural and Life Sciences, 1992-1995.
- **Executive Board**, Hispanic American Studies Program, 1991-1994.
- **Human Resource Development Council for the Office of the Provost**, 1991-94.
- **Policy Board**, Center for Applied Mathematics, 1991-1992.
- **Elected to Faculty Council of Representatives Committee on Affirmative Action**, 1990-1996.
- **Chair, FCR Committee on Affirmative Action**, 1990-1994.
- **Admission Committee**, Center for Applied Mathematics, 1990-1993.
- **Member of CALS Curriculum Committee**, 1990-92.
- **Colloquium Chairman**, Center for Applied Mathematics, 1988-1990.
- **Advisory Board to the Program Coordinator (Prof. Richard Durrett) for MSI activities in probability and statistics**, 1988-1994.

CONFERENCES/WORKSHOPS/IN-SERVICE PARTICIPATION**2009**

- Conference Co-Organizer, Arizona, Los Alamos, and New Mexico Days Annual Meeting (<http://mcmasc.asu.edu/lad>), Tempe, AZ, January 29-31st, 2009
- Special Advisory Visit, CEA-CREST and RIMI Programs (<http://cea-crest.calstatela.edu/>), California State University, Los Angeles, February 20th, 2009
- Conference Co-organizer, Conference in Honor of the 70th Birthday of Richard Tapia, Rice University, Houston, Texas, May 29th, 2009
- Conference Co-organizer, "Mitigating the Spread of A/H1N1 Flu: Lessons Learned from Past Outbreaks," (<http://mcmasc.asu.edu/conferences/h1n1>) Arizona State University, June 25-28, Tempe, AZ, 2009.
- Special Sessions Co-Organizer, Mathematics of Influenza: Models for the Transmission Dynamics and Control of Seasonal and Pandemic Flu Outbreaks – (http://meetings.siam.org/sess/dsp_programsess.cfm?SESSIONCODE=9107) Part I-III (SIAM-DW), MS96, MS97 and MS98, Denver Colorado, July 7-10, 2009

2008

- Panel Member, "SIAM Conference on the Life Sciences" Montreal, Quebec, Canada, 8/3/2008-8/11/2008
- Moderator, "SIAM Conference on the Life Sciences"- Lee Segel Forum-Interdisciplinary Training in Mathematical Biology, Montreal, Quebec, Canada, 8/3/2008-8/11/2008
- Invited Participant Meeting, AGEP/AAAS Headquarters, Arlington, VA, NSF AGEP Fourth Evaluation Capacity Building Meeting, 9/17/2008-9/19/2008
- Moderator, Ford Fellows, Arlington, VA, Workshop for the Conference of Ford Fellows, 9/20/2008-9/20/2008, Workshop for Professionalization, Grant Writing, Jr. Faculty, Quantitative Social Sciences & Sciences.
- Invited Participant, Mathematics Education Workshop, University of Arizona, Tucson, AZ, IM&E, 10/17/2008- 10/19/2008
- Directors' Meeting, SREB, Tampa, FL, Institute on Teach/Mentoring: Sloan Directors Conference, 10/23/2008-10/26/2008
- Advisory Board Meeting, SFI, Albuquerque, NM, Santa Fe Institute Advisory Board Meeting, 11/2/2008-11/3/2008
- Advisory Board Meeting, SIAM, Raleigh, NC, SIAM National Advisory Council meeting, 11/9/2008-11/10/2008
- Panel Member "Getting Undergraduates Involved in Research", SAMSI, Raleigh, NC, Blackwell-Tapia Conference, 11/13/2008-11/16/2008
- Invited Participant: The Epidemiology and Mathematical Modeling for Staphylococcus aureus Advisory Board Meeting, GlaxoSmithKline, Atlanta, GA, 11/20/2008-11/21/2008.
- Governing Board Meeting, MGE@MSA University of Nevada, Reno, 2/28/2008- 2/28/2008
- SIAM's Council's Meeting, SIAM Annual Meeting, San Diego, CA, 7/7/2008-7/11/2008
- Speaker, "Models and Epidemics: The role of globalization on disease emergence, re-emergence and its evolution," School of Human Evolution and Social Change, 01/29/2008
- Invited Presenter, "MTBI/SUMS at ASU," Workshop for Developing Pipeline Initiatives with Cal State University, Graduate School, Arizona State University, Tempe, AZ, 1/18/2008
- Invited Class Lecturer, "*Disease, Mathematics and Globalization*," Human Disease & Society Learning Community Class, Arizona State University, Tempe, AZ, 2/21/2008
- Presenter, "Orientation Guide to Academic Success," University Student Initiatives, Freshmen Orientation, 6/30/2008
- Panel Member, "Mentoring," Discussion Professional Values in Science, Bio 416/HPS 410, 1/29/2009
- Invited Class Lecturer, "Building Communities of Mathematicians," HED 691: Higher and

Postsecondary Education Pro-seminar 10/22/2008

- Podcast, Castillo-Chavez, Carlos - "Passion and Discipline: The Building Blocks of Success," Strategies for Success Podcasts <http://graduate.asu.edu/sfs/Podcasts.html>

2007

- Panel Member, MAA Panel Discussion, AMS/MAA Joint Mathematics Meeting, New Orleans, LA, January 6 – 7, 2007.
- Periodic Working Grant Report, PIRE Grant Report on Research, Ecosystems Modeling, Santa Fe, NM, February 12 – 13, 2006.
- Invited External Evaluator, STELLA Review, DHS' Bioterrorism Risk Assessment Program, Columbus, OH, February 20 – 21, 2007.
- Co-organizer, AMS Spring Western Meeting, Tucson, AZ, April 21 – 22, 2007.
- Mathematics Alignment Team Member, Governor's P-20 Council, Mathematics Alignment Institute, Phoenix, AZ, 4/25/2007 4/27/2007.
- Mathematics Task Force, AZ Dept of Education, Phoenix, AZ, 6/6/2007 6/8/2007.
- Mathematics Alignment Team Member, Governor's P-20 Council, Mathematics Alignment Institute, Minneapolis, MN, 7/27/2007 7/31/2007
- Mathematics Alignment Team Member, Governor's P-20 Council, Mathematics Alignment Institute, Phoenix, AZ, 8/13/2007 8/16/2007
- Mathematics Alignment Team Member Testimonial, Governor's P-20 Council, Phoenix, AZ, 10/1/2007
- Leadership Meeting, FUMEC-Math Initiative, SACNAS, Kansas City, MO, 10/13/2007.
- Invited Panel Member, Ford Fellows/Scholar Activists, Conference of Ford Fellows, Fellowships Office of the National Academies, Irvine, CA, 10/4/2007 10/7/2007.
- Invited Participant, Red de Talentos Mexicanos, Consulado General de Mexico en Phoenix, Jornada Informativa IME, Mexico City, MX, 7/7/2007 7/10/2007.
- Invited Participant, SREB, Institute on Teaching & Mentoring, Arlington, VA, Sloan Foundation, 10/25/2007 10/27/2007.
- Member National Advisory Board, NAC Meeting, SAMSI, Raleigh/Durham, NC, 11/15/2007 11/16/2007.
- Invited Participant, NIH-NIAAA Workshop, Mechanism of Behavior Change, Los Angeles, CA, 11/26/2007 11/28/2007.
- Member MIT Advisory Diversity Committee, Meeting MIT Diversity Committee, Massachusetts Inst. Of Tech., Boston, MA, 12/9/2007 12/10/2007.
- Invited Participant, Conference on Integrating Differential Equations with Math Biology, MBI/The Ohio State Univ., Columbus OH, 11/16/2007 11/18/2007.

2006

- Co-chair, 2006 SIAM annual meeting, Boston, Massachusetts, July 10-14, 2006
- Co-organizer, Four-Session Mini-Symposia "The Mathematical and Statistical Applications to Epidemiology and Public Health", SIAM annual meeting, Boston, Massachusetts, July 10-14, 2006.
- Chair, Ecology and Epidemiology Thematic Session, International Congress of Applied Mathematics (ICAM 2006), Santiago de Chile, March 11-18, 2006
- Co-organizer, Diversity Day, SIAM National Meeting, Boston, Massachusetts, July 2006.
- Discussant, Undergraduate Research and Capstone Experiences, VIGRE Program Network Meeting, University of Arizona, Tucson, October 21 – 22, 2006.
- Invited Participant, SLOAN Conference, Indiana, November 1 – 3, 2006.
- Invited Participant, Blackwell-Tapia Conference, Minnesota, November 2 – 5, 2006.
- Participant, SACNAS Annual Conference, Tampa, FL, October 21 – 22, 2006.
- Advisory Council Meeting, Fall Meeting of SAMSI's National Advisory Council, SIAM/NAC, Raleigh, NC, November 9 – 10, 2006.
- Invited Discussant/Mentor, AIM Research, Palo Alto, CA, December 3 – 8, 2006.

- Distinguished Visitor, Series of Lectures in Biological/Mathematical Modeling, University of Uruguay, Uruguay, September 9 – 13, 2006.

2005

- Member, Steering Committee, International Congress of Applied Mathematics (ICAM 2006) which will be held in Santiago de Chile, March 11-18, 2006.
- Co-organizer, "Modeling the Dynamics of Human Diseases: Emerging Paradigms and Challenges," July 17-21, 2005 at the Snowbird Ski Resort, Utah.
- Co-organizer, Diversity Day, SIAM National Meeting, New Orleans, July 11-15, 2005.
- (http://www.umanitoba.ca/institutes/iims/Snowbird_Organizers.shtml)
- Invited Participant, SAMSI Workshop of Modeling Infectious Diseases, SAMSI, January 31-February 1, 2005.
- Co-organizer, "Computational Biology of Infectious Diseases," SAMSI, NC, Winter 2005.

2004

- Member, Scientific Committee, International Conference on "Differential Equations and Applications in Mathematical Biology," July 18-23, 2004 in Nanaimo (Vancouver Island, Canada).
- Co-organizer, MTBI/SFI Workshop in Complexity Theory, SFI Institute, Santa Fe NM, July 7-9, 2004
- Co-organizer, Special Session, Dynamics of Social Networks, SIAM Annual Meeting, Portland Oregon, July 14-15, 04.
- Co-organizer, Special Session "Competitive and Adaptive Dynamics in Ecology," AMS Special Sessions Accepted for the Joint Annual Meeting (Phoenix, Jan. 7-10, 2004).
- Chair, Session on Emergent Species/Diseases and Invasion, Gordon Research Conference on Theoretical Biology and Biomathematics will be held June 6 - 11, 2004 at the Tilton School, in Tilton, New Hampshire.
- Invited Participant, Blackwell-Tapia Conference, UCLA, November 2004.

2003

- Member, Organizing Committee, First Joint Annual Meeting of SIAM and CAIMS in Montreal (<http://www.siam.org/meetings/an03/index.htm>), June 16-20, 2003.
- Invited Panelist, Panel discuss about possible educational directions at the intersection of the life sciences, mathematical sciences, and computer science. Joint Mathematics Meetings," Baltimore, MD, January 15-18, 2003 (organized by Williams, Calvin L., NSF).
- Co-organizer, Diversity Day, SIAM National Meeting, Montreal, June 16-20, 2003.

2002

- Chair, NIGMS 40th Anniversary Symposium, at SACNAS Annual Confer, 9, 28-2002.
- Invited Lecturer, "Mathematics and Epidemics—a short course", Summer School on BioMath, Centro Internacional de Matemática, Lisbon, Portugal, July 15-19, 2002 (Four Lectures).
- Organizer, Special Sessions on the Applications of Mathematics to the study of the Deliberate Release of Biological Agents and Related Topics, SIAM 50th Anniversary and 2002 Annual Meeting in Philadelphia, July 8 – 12, 2002.
- Co-organizer and Lecturer (with Herbert Hethcote and Pauline van den Driessche): Workshop on Disease Modeling, DIMACS Rutgers University, NJ (6/24-6/27).
- Invited Lecturer, "Short Course in Mathematical Biology," Universidad Metropolitana, San Juan, Puerto Rico. May 28-June 8, 2002.
- Invited Lecturer, "Short Course on Mathematical Biology for Teachers," Universidad Metropolitana, San Juan, Puerto Rico. May 28-June 8, 2002.
- Co-organizer (with Fred Roberts): Workshop on Bioterrorism, DIMACS, and Rutgers University, NJ. Produced White Paper on "The Deliberate release of biological agents and their Consequences" (4/02).
- Organizer: Special Session in Mathematical Epidemiology, SIAM First Life Sciences Conference (3/02).

- Member, Scientific Committee, "Third International Conference on Mathematical Biology, Satellite Meeting for the International Congress of Mathematicians, in Guilin, Guangxi Province, P.R. China, August 15-18, 2002.
- Invited Participant, Blackwell-Tapia Conference, MSRI, 2002.

2001

- Faculty Mentor, Woodrow Wilson Fellow Mentor Retreat, Career Enhancement Fellowships for Junior Faculty From Underrepresented Groups, Fall 2001 Retreat, Chauncey Conference Center, ETS, Princeton, NJ, October 3-5, 2001.
- Invited Participant, "The Committee on Science, Engineering, and Public Policy (COSEPUP) Convocation on Enhancing the Postdoctoral Experience," National Academy of Sciences, Washington, DC, March 2, 2001.
- Invited Panelist, Ninth Annual QEM/MSE Network Conference, February 2-4, 2001. "How to build a Bioinformatics Program", Washington, D.C.

2000

- Co-organizer, Diversity Day, SIAM National Meeting, San Juan Puerto Rico July 10-14, 2000.
- Co-organizer, The David Blackwell and Richard Tapia Distinguished Lecture Series in the Mathematical and Statistical Sciences, May 8, 2000, Cornell University, Ithaca, NY.
- Panelist, Graduate School Orientation, Eleventh Undergraduate Research Symposium, Universidad Metropolitana, San Juan Puerto Rico, October 20-22, 2000.
- Panelist, Undergraduate Research Internships, Eleventh Undergraduate Research Symposium, Universidad Metropolitana, San Juan Puerto Rico, October 20-22, 2000.
- Panelist, Success and Survival in Academia, Eleventh Undergraduate Research Symposium, Universidad Metropolitana, San Juan Puerto Rico, October 20-22, 2000.
- Lead Panelist, Mathematical Modeling Session, Model Institutions for Excellence, Fifth Annual Conference, Atlanta, GA, April 5-8, 2000.
- Invited Panelist, Ninth Annual QEM/MSE Network Conference, February 11-13, 2000. "Nuts & Bolts of Graduate School -The First Two Years", Washington, D.C.
- Panelist, Challenges to Affirmative Action -- Roundtable Discussion, September 14, 2000 from 4:00-6:00 P.M., Anabel Taylor Auditorium, Cornell University.

1999

- Co-organizer, Tutorial Sessions on Mathematical Epidemiology Institute for Mathematics and its Applications (IMA), University of Minnesota (May 13-14, 1999).
- Co-organizer, Workshop on Mathematical Epidemiology Institute for Mathematics and its Applications (IMA), University of Minnesota (May 17-21, 1999).
- Co-organizer, Spring Program, Special Year on Mathematical Biology, Institute for Mathematics and its Applications, University of Minnesota, 1999.
- Special Guest, "Outside Researchers Networking Reception", Whitehead Institute for Biomedical Research on March 3rd, 1999, New England Board of Higher Education (3/99).
- Invited Participant, NSF Summit Meeting: Promoting National Minority Leadership in Science and Engineering, Rice University, Houston, TX, October 19, 1999.
- Invited Participant, The Summer Mathematics Experience: A working Conference on Summer Mathematics Programs for Undergraduates, sponsored by AMS with funding from NSA (September 30 – October 2, 1999).
- Invited Participant, PI/GPRA meeting, Making warranted claims from NSF-supported research. NSF-sponsored meeting on mathematics and science education (6/3-6/4, 99). (NSF, Virginia).
- Invited Participant, Meeting on "Complex Systems and K-16 Education" (6/18-6/20, 99), MIT Endicott house in Dedham, MA (6/99).
- Invited Participant, Sloan Engineering and Science Underrepresented Minority Graduate Recruitment and Retention Conference, Rice University, Houston, TX, March 11-12, 1999.

1998

- Organizer, “Encuentro Internacional de Investigación a Nivel de Licenciatura: Retos en Matemáticas Aplicadas. Ejemplos de Investigación desarrollada por estudiantes de licenciatura”. IIMAS, UNAM, México, August 13-14, 1998.
- Organizer, Special Session on Applied Mathematics, SACNAS 1998 National Meeting, Washington, DC (8/10/98).
- Member, Scientific Committee, Cuarto Encuentro de Ecología Matemática, August 3-14, 1998, Valparaiso, Chile and Mendoza, Argentina.
- Co-organizer, Special Year on Mathematical Biology, Centro de Investigaciones Científicas, Cuernavaca, México (9/97-6/98).
- Member, Scientific Committee, Fifth International Conference Mathematical Population Dynamics, Zakopane, Poland, June 21 - 26, 1998.
- Invited Participant, Fifth Invitational Mathematics Meeting, National Security Agency, Fort George G. Meade, Maryland.

1997

- Co-organizer, Postdoctoral Fellowship Workshop in the Sciences, Ford Foundation National Meeting, National Academy of Sciences, CA (10/97).
- Member, Scientific Committee, The International Conference on Mathematical Biology, Hangzhou, China, May 26-29, 1997.
- Member, Scientific Committee: “Mathematical Models in Medical and Health Sciences,” Department of Mathematics, Vanderbilt University, Nashville, TN, May 28-31, 1997.
- Invited Participant, OST/NSF panel: “Mentoring for the 21st Century Workforce: A symposium”, September 11-12, 1997, Washington, DC.

1996

- Co-organizer, Special Session; “Mobilizing Our Collective Intellectual Power”. Ford Foundation Conference for Fellows, Beckman Center of the National Academy of Sciences, Irvine, C.A (10/96).
- Co-organizer, Annual National SACNAS Meeting, Los Angeles, CA.
- Invited Participant, Fourth Invitational Mathematics Meeting, National Security Agency, Fort George G. Meade, Maryland (10/96).
- Panel Member, “The Disuniting of America: Affirmative Action Under Attack.” Ethnic Studies Colloquium, Cornell University, March, 1996.

1995

- Co-organizer, Annual National SACNAS Meeting, Tempe, AZ (11/95).
- Co-organizer, Special Session, “Changing a Hostile Environment: Promoting Diversity at your Institution.” Ford Foundation Conference for Fellows, National Academy of Sciences, Washington, D.C. (10/95).
- Co-organizer, Meeting of the Society for Mathematical Biology, Oaxtepec, México (5/95).
- Organizer, Annual Northeast Chapter SACNAS Conference, Cornell University, Ithaca, NY (3/95).

1994

- Chair, Mathematics and Computer Science Academic Exchange Session, Ford Foundation Conference for Fellows, National Academy of Sciences, Irvine, CA (10/94).
- Co-organizer, International Meeting on the Applications of Mathematics to Biology and Industry, (a meeting dedicated to the memory of Professor Stavros Busenberg). Claremont, CA (6/94).
- Chair, Session on Population Biology and Pattern Formation, Gordon Conference in Theoretical Biology, Tilton, NH (5/94).
- Panel Member, “1969 and Beyond: Challenges to Higher Education,” Cornell University, April 1994.

1993

- Co-organizer, Special Session in Numerical and Asymptotics Methods in Biology, Joint Meeting of SIAM and the Mexican Mathematical Society, Ciudad de Mérida, Yucatan, México (12/93).
- Co-organizer, Special Session in Epidemiology, SIAM Meeting, Claremont, CA (11/93).
- Co-organizer, Meeting of the Society of Mathematical Biology, Cornell University, Ithaca, NY (7/93).
- Co-organizer, Special Session in Epidemiology, Meeting of the Society of Mathematical Biology, Cornell University, Ithaca, NY (7/93).
- Co-organizer, Second Annual Northeast Chapter SACNAS Conference, Cornell University, Ithaca, NY (4/93).
- Co-organizer, NATO Advanced Research Workshop on Epidemic Models, Isaac Newton Institute, Cambridge, England (1/93).
- Panel Member, "Progress Towards Diversity," Advisory Committee on the Status of Women, Cornell University, January 1993.
- Panel Member, Panel Proposal Review for CRP-graduate class (David Lewis), Cornell University, May 1993.

1992

- Co-organizer, NSF-Workshop: Long Time Series Analysis and Interpretation in Marine, Freshwater and Terrestrial Environment. Funded by NSF, Woods Hole, and the Center for Applied Mathematics, Cornell University (John H. Steele, PI; co-organizers, J. Steele, S. A. Levin, T. Powell, C. Castillo-Chavez, and J. Guckenheimer).
- Co-organizer, Special Session on Mathematical Epidemiology, First World Congress for Nonlinear Analysis, Tampa, Florida (8/92).
- Special Session Speaker, "The Role of Social Structure on the Dynamics of HIV/AIDS." (SACNAS). San Antonio, TX, 1992.

1991

- Co-chair, Organizing Committee: National Academy of Sciences Conference for Ford Foundation Fellows, Washington D.C (11/91).
- Co-organizer, National Academy of Sciences Conference for Ford Foundation Fellows, Washington D.C (4/91).
- Invited Panelist, - "Recruiting and Retaining Minorities in Science and Mathematics." Symposium on Undergraduate Science Education for the 21st Century, Harvey Mudd and Pomona College, Claremont, CA, 1991.
- Invited Panelist, AIBS Conference Program: "Minorities in Biology: Opportunities for Growth." San Antonio, TX, 1991.
- Panel Member, "Panel on Ethics and Accountability in Science," MRDC Committee, College of Agriculture and Life Sciences, Cornell University, October 1991.

1988

- Co-organizer, International Symposium on Mathematical Approaches to Environmental and Ecological Problems, Cornell University, Ithaca, NY (10/88).
- Co-organizer, Symposium on Mathematical Modeling and the Fate, Transport, and Effects of Chemicals in the Environment, Cornell University, Ithaca, NY (3/88).

1987

- Chair, Session in Grants for the Natural Sciences, Conference for Ford Foundation Fellows, National Academy of Sciences, Washington, D.C (11/87).
- Special Session Speaker, "Models for Sexually Transmitted Diseases: Gonorrhea and AIDS." Conference for Ford Foundation Fellows, National Academy of Sciences, Washington, D.C., 1987.

1985

- Co-organizer, Mini-Symposium on Population Dynamics, First International Conference on Global Techniques, University of Texas-Arlington (3/85).
- Organizer, Two special sessions on Biomathematics, MAA Oklahoma-Arkansas Meeting (3/85).

INVITED PRESENTATIONS**2009**

- Special Session Invited Speaker, Special Session in Mathematical Modeling of Natural Resources, “Models of Disease Dispersal for populations with overlapping and non-overlapping discrete populations,” MAA-AMS Joint Mathematics Meeting/Washington DC,, Jan 4-10, 2009
- Special Session Invited Speaker, Special Session in Dynamical Systems and Differential Equations: Theory and Applications, “On the dynamics and control of drinking: Role of Control Theory in Combating Relapse and Other Factors,” MAA-AMS Joint Mathematics Meeting/Washington DC, Jan 4-10, 2009
- Series of Lectures Invited Speaker, “Three Lectures on Contact and Pair Formation Models and their Application to Biology,” Centro de Investigación en Matemáticas, CIMA–UAEH, Mexico, January 11-13
- Plenary Lectures Invited Speaker, “Three Lectures on Mathematical Epidemiology with Applications to Specific Diseases,” Conference “ANALISIS Y FISICA-MATEMATICA 2009” Centro de Investigación en Matemáticas, CIMA–UAEH, Mexico, January 14-16
- Special Lecture, “Promoting Diversity in the Mathematical Sciences: Success Stories,” Mathematical Biosciences Institute, Mathematics Department, and Office of Minority Affairs, Ohio State University, Thursday, January 22, 2009
- Seminar Speaker, “Mathematics of College Drinking,” Mathematical Biosciences Institute, Ohio State University, Friday, January 23, 2009
- Plenary Speaker, “Disease Transmission Dynamics in the Context of Rotavirus and Pneumonia” in Modeling in Biomathematics is the application of mathematical models to problems in biology and medicine, Second SIAM Gator Students Conference, University of Florida SIAM Student Chapter, March 3-5, 2009
- Invited Speaker, “Disease Transmission Dynamics in the Context of Rotavirus and Pneumonia Reported Infectious Data for Australia,” International Workshop on Modeling and Data Analysis for Infectious Disease Control, Murramarang, NSW, Australia, March 9-12, 2009
- Plenary Speaker, “Role of local and long-distance travel on the dynamics of infectious diseases,” 24th Annual Shanks Lecture and Conference, Vanderbilt University, Nashville, Tennessee, May 18-21, 2009
- Invited Speaker, “Epidemics and Prejudice: The Case of Influenza, HIV and Related Diseases,” Conference in Honor of the 70th Birthday of Richard Tapia, Rice University, Houston, Texas, May 29th, 2009
- SIAM Keynote Speaker, “Travel, Mass Transportation and Emergent Diseases: SARS, Bioterrorism and Influenza,” The 2nd International Conference on Mathematical Modeling and Computation and The 5th East Asia SIAM Conference, University Brunei Darussalam, June 8-11, 2009
- Special Invited Lecture, “Travel, Mass Transportation and Emergent Diseases: SARS, Bioterrorism and Influenza,” Ministry of Health, Brunei, June 9, 2009
- Invited Speaker/Panelist, “Drinking and Behavior: Dynamics at the Population Level,” in Panel Changing existing behaviors, National Institutes of Health Science of Behavior Change Meeting, June 15-16, 2009, Marriott Hotel, 5151 Pooks Hill Road, Bethesda, MD

2008

- Plenary Speaker, Marrakesh International Conference and Workshop on Mathematical Biology, University of Marrakech, Morocco, 1/3/2008 -1/8/2008
- NIH-NIAAA Workshop by Invitation, Mechanism of Behavior Change, Attend Meeting, Atlanta, GA, 1/14/2008-1/17/2008
- Colloquium Speaker, “Disease, Mathematics and Globalization,” Mathematics Department, University of TX - El Paso, El Paso, TX, 1/24/2008-1/25/2008

- Colloquium Speaker, “Mathematics and Epidemics: the role of globalization on disease emergence, re-emergence and its evolution.” Mathematics Department, University of Nebraska, Lincoln, NE, 2/5/2008-2/5/2008
- Colloquium Speaker, “Mathematical Epidemiology and Disease Dynamics,” Claremont Colleges, Claremont, CA, Colloquium, 2/13/2008-2/13/2008
- Invited Speaker, Special Session, “Mathematical Models for Nosocomial Infections,” AAAS, Boston, MA, AAAS Annual Meeting, 2/14/2008-2/17/2008
- Invited Speaker, Arizona, Los Alamos, New Mexico Days, “Nosocomial infections and dual resistance: there is no silver bullet,” University of NM, Albuquerque, NM, New Mexico, 2/29/2008-3/1/2008
- Key Note Speaker, “*Mathematics and Society: Building Communities for the Future*”, Next Step in Math & Science Education: Our Community's Future Conference, Indiana Univ. South Bend, South Bend, IN, 4/17/2008-4/18/2008
- Colloquium Speaker, “Mathematics and Disease: The case of tuberculosis,” St. Olaf College, Minneapolis/St. Paul, MN, Mathematical Biology Working Group Colloquium, 4/28/2008-4/30/2008
- Colloquium Speaker, “The dynamics of disease in the 21st century: From vaccines to homeland security,” St. Olaf College, Minneapolis/St. Paul, MN, Mathematical Biology Working Group Colloquium, 4/28/2008-4/30/2008
- Special Session Invited Speaker, Special Session, “Models for sexually-transmitted diseases: from Sir Ronald Ross to Ken Cooke and beyond,” AMS section Meeting - Dynamical Systems and Differential Equations, Claremont College, Claremont, CA, 5/2/2008-5/3/2008
- Invited Speaker, “Increasing the Minority Representation in Mathematics,” Mathematics Department, Cal-Poly, Pomona, CA, 5/5/2008-5/7/2008
- Invited Speaker, “The Challenges of Global Health Perspective,” 2008 MITACS Summer School on Mathematical Modeling of Infectious Diseases, University of Alberta, Canada, Edmonton, Canada, 5/9/2008-5/12/2008
- Invited Speaker, “Mathematical and Computational Models in Epidemiology” Montclair University, Newark, NJ, Conference on Undergraduate Research and Teaching, 6/3/2008-6/5/2008
- Invited Speaker, Special Session, “Building Communities through REU Programs” Madison, WI, MathFest, 8/1/2008- 8/3/2008
- University Lecture or Lección Magistral Speaker, Opening Academic Year University Lecture, “*Filosofía y Modelos para Incrementar la Presencia Puertorriqueña en las Matemáticas y sus Aplicaciones en Puerto Rico: Una Perspectiva Histórica y Política*,” Universidad de Puerto Rico, Cayey, Puerto Rico, 9/3/2008-9/5/2008
- Keynote Speaker, “Building Communities of Minority Researchers at the Interface of the Biological and Mathematical Sciences”, National Science Foundation, Arlington, VA, Hispanic Heritage Month Observance, 9/9/2008-6/3/2008 <http://www.nsf.gov/od/oeo/hhm.pdf>
- Invited Speaker, Pre-Program Session, “The Evolution of Disease: Methods and Implications for Minority Health”, 2008 American College of Epidemiology Meeting Program Tucson, AZ, 9/12/2008-9/13/2008.
- Colloquium Speaker, “Mathematics, Epidemics and Disease Evolution: From Tuberculosis to Influenza to Nosocomial Infections,” Brown University, Providence, RI, Seminar, 9/25/2008-9/26/2008
- Invited Speaker, “On Biomathematics: Applications to Disease Dynamics and Control,” AGMUS at Universidad de Metropolitana, Puerto Rico, 10/3/2008
- Invited Speaker, Special Session, “*The Use of Mathematical Models in the Study of Nosocomial Infections: The case of dual antimicrobial resistance*,” International Polar Year: Global Change in Our Communities, SACNAS, Salt Lake City, UT, 10/10/2008

- Keynote and Banquet Speaker, “The Building of Communities of Minority Mathematicians: The cases of Cornell, Iowa and Arizona State”, MSRI & EDGE Promoting Diversity at the Graduate Level in Mathematics: A National Forum, Berkeley, CA, 10/16/2008
- Colloquium Speaker “Building a Diverse Community of Scientists: The Cases of Cornell, Iowa and Arizona State”, University of North Carolina, Charlotte, NC, Colloquium 11/10/2008-11/11/2008
- Colloquium Speaker “Disease, Dynamics and Control: The Use of Mathematical Models in the Study of Infectious Diseases”, University of North Carolina, Charlotte, NC, 11/11/2008
- Invited Speaker, “Epidemiological Approaches to the Modeling of the Dynamics of Social Processes: The Case of “drinking”,” Differential Equations and Applications in Ecology and Epidemiology Conference, Purdue University, West Lafayette, IN 12/9/2008-12/10/2008

2007

- Special Session Speaker, “Increasing Minority Representation in the Mathematical Sciences: Good models but no will to scale up their impact,” *Attracting Underrepresented Students to Graduate Study Through Research*, 2007 Joint Mathematics Meeting, AMS, New Orleans, LA, 1/6/2007 1/7/2007.
- Invited Speaker: “Dynamical Models in Biology and Undergraduate Research,” STEM Students Program, University of Alabama, Montgomery, February 5 – 6, 2007.
- Biology Colloquium Speaker, “Perspectives on Mathematical, Theoretical and Computational Epidemiology,” University of Nebraska, Lincoln, NE, February 22, 2007.
- Mathematics Colloquium Speaker, “Mathematical Models for the Transmission Dynamics and Control of Tuberculosis,” University of Nebraska, Lincoln, NE, February 23, 2007.
- Plenary Speaker, The Mathematics of Global Public Health, Arizona State University, Tempe, March 7 – 10, 2007.
- Notestein Seminar Series Speaker: “Dynamics and Evolution of Emergent and Re-Emergent Diseases in a Global Economy,” Office of Population Research, Princeton, NJ, March 12 – 14, 2007.
- Plenary Speaker: “Dynamics of Re-Emergent Diseases: The Case of Tuberculosis” Opportunities in Mathematical Biology for Underrepresented Groups. Mathematical Biosciences Institute, Columbus, OH, March 23 – 25, 2007.
- Invited Speaker, “From epidemics to pandemics: the role of cross-immunity and population structure on the dynamics of influenza,” Conference on Adaptive Systems, ASU, March 29, 2007
- Invited Speaker: “Increasing the Minority Representation in the Mathematical Sciences: Good models but no will to scale up their impact”, *The Deans' Summit on Representation*, Rice Univ. Houston, TX, April 4, 2007
- Invited Speaker, AGEF Panel, Rice Univ. Houston, TX, April 5, 2007
- Key Note Speaker: “Models for the Spread of Scientific Ideas: The case of Feynman Diagrams,” Social Computing Conference, Xiang Mountain conference series, organized by the Chinese Academy of Sciences, *Fragrance Mountain Conference Series* (FMCC07), Beijing, China, April 8--10, 2007.
- Main Speaker, “Challenges of Globalization, Poverty and Re-emergent Diseases,” Pi Mu Epsilon Conference, St. Benedict College, Minneapolis, St. Paul, Minnesota, April 20, 2007.
- Main Speaker, “Mathematical Models and their Applications to Homeland Security,” Pi Mu Epsilon Conference, St. Benedict College, Minneapolis, St. Paul, Minnesota, April 21, 2007.
- Invited Speaker, “The Impact of Behavioral changes on the Transmission dynamics and Control of Infectious Diseases”, Workshop in “Public trust and Public Health”, Models of Infectious Disease Agents Study (MIDAS), Philadelphia, PA, 5/8/2007.
- Invited Speaker, “The Impact Of Local Perspectives on the Challenges Posed by Global Health Issues,” DIMACS, SCAEMA and AIMS, Workshop on Infectious Diseases. Stellenbosch, South Africa, June 25 – 27, 2007.

- Plenary Speaker, Joint Invited Address, Mathematical Association of America and the Society for Mathematical Biology, “On the Dynamics and Evolution of Emergent and Re-Emergent Diseases: From Tuberculosis to SARS to the Flu” *MathFest*, San Jose, California, August 3, 2007.
- Panel Speaker, “Situación de la salud en frontera Mexico-Estados Unidos,” El Colegio de la Frontera Norte (COLEF), Eventos Conmemorativos, 25 Años, Tijuana, MX, 8/27/2007-9/2/2007.
- Plenary Speaker, “Challenges in Mathematical and Theoretical Epidemiology.” MBI’s Fall Workshop for Young Researchers in Mathematical Biology, Columbus, OH, September 11 – 14, 2007.
- Colloquium Speaker, “Mathematics and Epidemics: Local versus global perspectives,” University of Louisville, Louisville, KY, 9/13/2007 9/14/2007.
- Distinguished Lecture Series Speaker, “Disease Dynamics in a Global Community,” First Invitee to the *Dean’s Distinguished Series Speaker*, UT-San Antonio, San Antonio, TX, 9/27/2007 9/29/2007.
- Invited Panel Speaker, to workshop “Getting the Most from A Mentor, Negotiating the Ideal Faculty Position,” Rice Univ. Houston, TX, 10/15/2007 10/16/2007.
- Colloquium Speaker, “Las Matemáticas y la Seguridad Social: Epidemias y sus Consecuencias,” ITAM, Mexico City, Mexico, 10/19/2007.
- Plenary Speaker, “Infectious Disease Dynamics: Challenges and Opportunities,” KSMB, Korean Society for Math/Biology, Daejeon, Korea, 10/31/2007 11/4/2007.
- Colloquium Speaker, “Disease Dynamics and Evolution: Challenges and Opportunities in the 21st Century,” University Iowa City IA, 12/6/2007.

2006

- Invited Speaker, Research as the Driver of Increased Diversity in Undergraduate and Graduate Applied Mathematics Programs, Joint Mathematics Meeting, San Antonio, TX, January 12 – 15, 2006.
- Key Note Speech, (http://umet_mie.suagm.edu/) In the Path of Success: Mentorship and Research Experiences, MIE Model Dissemination, San Juan, PR, February 2 – 4, 2006.
- Colloquium Speaker, Mathematical Models and the Transmission Dynamics of Tuberculosis, Tulane Mathematics Colloquium, New Orleans, LA, February 15 – 16, 2006.
- Invited Speaker, Evaluating Curricular Effectiveness: Judging the Quality of K-12 Mathematics Evaluations, AAAS Annual Meeting, St. Louis, MO, February 16 – 17, 2006.
- Distinguished Invited Speaker, Bioterrorism and Infectious Diseases. Mathematical Models, Infectious Diseases and Bioterrorism, Invitation to Speak at Capital University, Columbus, OH, February 22 – 24, 2006.
- Invited Speaker, Shared Ideas and Define a Research Agenda for Open Source, Proactive Intelligence Techniques That Can Be Used to Defeat Terrorist and Other Non-Traditional Adversaries. Open-Source Proactive Intelligence Workshop, McLean, VA, March 5 – 6, 2006.
- Invited Speaker, Epidemiological Approaches and Public Security. The Mathematics of Public Security, National Academy of Sciences, Vienna, Austria, April 4 – 9, 2006.
- Invited Speaker, Biosecurity Modeling. IEEE Intelligence and Security Informatics 2006, San Diego, CA, May 23 – 24, 2006.
- Invited Speaker, Epidemiological Approaches and its Application to Public Security. 2006 Summer School on Mathematical Modeling of Infectious Diseases, Toronto, Canada, June 13 – 16, 2006.
- Invited Special Session Speaker, System Dynamic and Agent-Based Models of Drinking and Violence, Population Ecologies of Alcohol and Drug Problems/RSA, Baltimore, MD, June 23 – 26, 2006.
- Invited External Speaker, DSRC/DARPA, San Diego, CA, July 18 – 19, 2006.

- Distinguished Invited Speaker, Emergent Disease and the Challenges of Globalization, MBI Public Lecture Series, Columbus, OH, September 25 – 27, 2006.
- Invited Speaker, Epidemics and Globalization: Challenges and Opportunities. PIMS (Pacific Institute for Mathematical Sciences) “Bridging the Scales of Disease Dynamics”, Vancouver, Canada, September 27 – 28, 2006.
- Invited Speaker, Increasing Minority Representation in the Mathematical Sciences: Good Models but No Will to Scale Up Their Impact, CHERI Cornell Higher Education, Ithaca, NY, October 7 – 9, 2006.
- Invited Speaker: “Globalization and Disease Emergence: Challenges and Opportunities,” SIAM Student Chapter Meeting, Columbia University, New York, NY, October 29 – 31, 2006.

2005

- Invited Speaker, “MTBI: A Program for Undergraduate Research that Works.” MER Conference, ASU, December 3, 2005
- Main Speaker, “Epidemiological Models to Study the Spread of Ideas.” Epidemiology of Ideas Workshop, St Louis, MO Nov. 6-9, 2005.
- Plenary Speaker, “Models for the Spread of Tuberculosis.” 4th Symposium in Colombia, Universidad del Valle, Cali Colombia, October 31-Nov 5, 2005.
- Distinguished Speaker, “Mathematical Model and Bio-terrorism,” University of Miami, Oxford, Ohio, Annual Undergraduate Research Meeting, September 29-30, 2005.
- Distinguished Speaker, “Mathematical Model and Tuberculosis,” University of Miami, Oxford, Ohio, Annual Undergraduate Research Meeting, September 29-30, 2005.
- Distinguished Speaker, “Models for the Spread and Evolution of Tuberculosis.” September 22, University of Alabama at Huntsville, Huntsville, AL
- Key Note Speaker, “Why should we go into academia?” MIE-UMET Congress, September 17, 2005, Puerto Rico
- Plenary Speaker, “Mathematical Models and Influenza,” International Workshop on Mathematical Modeling of Infectious Diseases, Singapore, August 21-27, 2006.
- Invited Lecturer, “Mathematical Models and Tuberculosis,” International Workshop on Mathematical Modeling of Infectious Diseases, Singapore, August 21-27, 2006.
- Invited Lecturer, “Mathematical Models and Bio-terrorism,” International Workshop on Mathematical Modeling of Infectious Diseases, Singapore, August 21-27, 2006.
- Invited Lecturer, “Mathematical Models and Dengue,” International Workshop on Mathematical Modeling of Infectious Diseases, Singapore, August 21-27, 2006.
- Invited Speaker, “Deliberate Releases of Biological Agents and Bio-Terrorism.” Mathematical Biology JSRC Conference, Snowbird, Utah, July 19, 2005.
- Key Note Speaker, “Can we develop a theory epi-economics,” 2005 World Conference on Natural Resource Modeling, Humboldt State University, Arcata CA, June 16, 2005.
- Invited Speaker, “Why should become a faculty professor,” MGE@MSA, ASU, April 18, 2005.
- Invited Speaker, “Role of Faculty in Diversity”, MGE@MSA, ASU, April 18, 2005.
- Invited Seminar Speaker, “Epidemics and Dispersal.” CSTAR Center, UC Santa Barbara, March 7, 2005.
- Invited Seminar Speaker, “Mathematical Models for the Spread of Tuberculosis.’ Department of Mathematics, Purdue University, February 22, 2005.
- Invited Seminar Speaker, “Mathematical Models and their Application to the Study of the Spread and Control of Tuberculosis”, Biomathematics Seminar, North Carolina State, February 24, 2005.
- Symposium Speaker, “Finding and Keeping Graduate Students in the Mathematical Sciences,” AAAS Annual Meeting, Washington, DC, February 20, 2005.
- Invited Speaker, “Diversity in Academia,” INTERCROP Relations Center, ASU, February 21, 2005.
- Invited Seminar Speaker, “Mathematical Model Applications to Disease and Homeland, Security” PRIMES, Colorado State University, February 17-18, 2005.

- Invited Speaker, " *Mathematical Models and Their Application to the Spread and Control of Tuberculosis*," Mathematical and Statistical Modeling of Infectious Diseases-New Trends and Developments, Oslo University, Oslo, Norway, February 11, 2005.
(<http://www.med.uio.no/imb/stat/norevent/conferenceweb/conferencestart.html>)
- Invited Speaker, " *Mathematical Model Applications to Disease and Homeland Security*" Mathematical and Statistical Modeling of Infectious Diseases-New Trends and Developments, Oslo University, Oslo, Norway, February 10, 2005.
(<http://www.med.uio.no/imb/stat/norevent/conferenceweb/conferencestart.html>)
- Invited Speaker, "Modelos Epidemiológicos" Primer Curso Centroamericano de Modelación Matemática, Nacional University, San Salvador, El Salvador, January 21, 05.
- Invited Speaker, "Mathematical Models and their Application to the Control of Tuberculosis." NSF Sponsored Workshop/School, Universidad de El Salvador, San Salvador, January 18-22, 2005.
- Workshop Speaker, "Problems in Epidemiology," SAMSI Workshop of Modeling Infectious Diseases, SAMSI, North Carolina, January 31-February 1, 2005.
- Invited Speaker, "Collaborative Learning with Students' Driven Research Agenda: the case of the Mathematical and Theoretical Biology Institute." National Research Council (National Academy of Sciences) institute on integrating quantitative and life sciences for NIH minority program, Santa Cruz, CA, January 9-11, 2000.
- Dr. Marjorie Lee Brown Colloquium (<http://www.math.lsa.umich.edu/mlk/index.html>), *The Colloquium honors Dr. Marjorie Lee Browne, the first African-American woman to earn the Ph.D. in Mathematics from the University of Michigan.* January 17, 2005

2004

- Applied Mathematics Seminar Speaker, "Epidemiological Mathematical Modeling Applications in Homeland Security," Department of Mathematics, Purdue University, Lafayette, IN October 29, 2004.
- IGERT Seminar Speaker, "Models for the Spread and Control of Tuberculosis, IGERT Applied Mathematics Seminar, University of Arizona, Tucson, AZ, September 21, 04
- Hispanic Heritage Month Key Note Speaker, The National Institutes of Health Hispanic Employee Organization (NIH-HEO) (<http://videocast.nih.gov/PastEvents.asp>) 2004 Hispanic Heritage Month Celebration: Part 1; September 15, 2004.
- Special Seminar Speaker, "Modelos Matemáticos en la Salud y Seguridad Pública," Universidad de Baja California, Baja California, México, August 20, 2004.
- LSAMP Speaker, Workshop for WAESO LSAMP fellows, Arizona State University, Tempe, AZ, July 30, 2004 (CD Available).
- Special Workshop Speaker, "How to build the discipline and passion to get into and complete a graduate program." AGEP Workshop, University of New Mexico, Albuquerque, NM, July 26, 04.
- Panelist Speaker, SIAM Annual Meeting, Professional Development Evening. Panel 1: Writing and Submitting a Paper, Portland Oregon, July 15, 2004.
- Special Session Speaker, "An Epidemic Model with Virtual Mass Transportation" SIAM Annual Meeting, Special Session, Dynamics of Social Networks Part 1, Portland Oregon, July 14, 2004.
- Special Session Speaker, "Modeling the Spread of Disease on Dynamic Networks" SIAM Annual Meeting, Special Session, Dynamics of Social Networks Part 2, Portland Oregon, July 15, 2004.
- Workshop Speaker, "Introduction to MTBI/SFI Workshop in Complexity Theory," SFI Institute, Santa Fe NM, July 7, 2004.
- Invited Lecturer, "Mixing and Epidemiology 1" MITACS/PIMS Special Program on Infectious Diseases June 19 - July 2, 2004 at the Banff International Research Station in Banff, Alberta, June 25, 2004.
- Invited Lecturer, "Two epidemiological Examples with Complex Mixing" MITACS/PIMS Special Program on Infectious Diseases June 19 - July 2, 2004 at the Banff International Research Station

- in Banff, Alberta, June 26, 2004.
- Special Seminar Speaker, Shanghai Jiaotong University, China, May 10-24, 2004. “Models for the spread and evolution of Influenza.”
- Special Seminar Speaker, Xi'an Jiaotong University, China, May 10-24, 2004. “Models for the spread of tuberculosis.”
- Special Seminar Speaker, Xi'an Jiaotong University, China, May 10-24, 2004. “Models for the spread and evolution of Influenza.”
- Special Seminar Speaker, Xi'an Jiaotong University, China, May 10-24, 2004. “Models for the natural and deliberate spread of biological agents: the case of SARS and smallpox.”
- Key Note Speaker, “Building and Linking Communities through Mathematics: Adventures of a Mathematical Biologist”, NSF AGEP Alliance for Graduate Education and the Professoriate Stony Brook University, April 30, 2004.
- Special Seminar Speaker, “Epidemiological Approaches to Questions in Homeland Security,” Estrella Mountain Community College, Phoenix, AZ, April 8, 2004.
- Special Speaker Hispanic Heritage Month, “The Possible Use of Mathematical Models in Homeland Security,” University of Arizona, April 22, 2004.
- Colloquium speaker, “Cross - immunity and influenza dynamics,” Mathematics Colloquium, University of Arizona, April 22, 2004.
- Colloquium speaker, “Use Of Epidemiological Models On Problems Associated With Homeland Security, Applied Mathematics Colloquium, University of Arizona, April 23, 04.
- SIAM Colloquium speaker, Problems at the Interface of Mathematics and Homeland Security, Dept. of Mathematics & Statistics, Texas Tech University, Lubbock, TX, April 14, 04.
- Speaker Mentoring Institute, “Why should you consider doctoral education and the professoriate?” MGE Fourth Mentorship Institute, ASU, Tempe, AZ, March 29, 04.
- Speaker Mentoring Institute, “Mentoring: Making a Difference,” MGE Fourth Mentorship Institute, ASU, Tempe, AZ, March 29, 04.
- Special Seminar Speaker, “Cross-Immunity as multiple strain viral co-existence: The case of influenza A,” Mathematical Biology Seminar, University of British Columbia, Vancouver, CA, March 17, 2004
- Special Seminar Speaker, “Epidemiological Approaches to Questions in Homeland Security,” San Diego State University, San Diego, CA March 7, 2004.
- Joaquin Bustoz Jr. Community Lecture, “Building and Linking Communities Through Mathematics: from epidemics to collaborative learning to homeland security,” March 3, 2004, Arizona State University, Tempe, AZ, 2004.
- Colloquium speaker, “Epidemics on Attractors,” Mathematics Colloquium, Trinity College, San Antonio, TX, February 17, 2004.
- Special Session Speaker, “Mathematical Challenges and Opportunities in Homeland Security,” Special Session “Competitive and Adaptive Dynamics in Ecology,” AMS Annual Meeting, Phoenix Arizona, January 8, 2004.
- Seminar Speaker, “Models for Influenza with Cross-immunity,” Mathematical Biology Seminar, Arizona State University, Tempe, AZ, March 26, 2004.

2003

- Distinguished Visitor's Lecture Series, (<http://www.math.uiowa.edu/colloq0304.htm>) Department of Iowa, November 17-20, 2003 (3 lectures).
- Invited Speaker, Advanced Undergraduate Honors Seminar, “Cooperative Behavior and Peer Pressure: what do the dynamics of drug use, collaborative behavior and fanaticism have in common?” University of New Mexico, March 26, 2003.
- Colloquium speaker, “Tuberculosis: Past, Current and Future Trends,” Joint Math & Stats and Center for Advanced Studies Colloquium, University of New Mexico, March 27, 2003.

- Invited Speaker, "Questions and models associated with the deliberate release of biological agents and their consequences," Joint Burroughs Wellcome Fund/Program in Applied and Computational Mathematics seminar at Princeton University, April 21, 03.
- Selected Presenter, "A Simple Model of Toronto's SARS Outbreak," Workshop on Modeling Social Responses to Bioterrorism Involving Infectious Agents," DIMACS, Rutgers University, May 29-30, 2003.
- Invited Visitor/Speaker, "El uso de modelos epidemiológicos en el estudio de la propagación de enfermedades y drogas," Universidad De Granada, Granada, Spain, May 4-9, 2003.
- Invited Presenter, "Models and Fanatic Behavior," In Workshop: "How Complex Adaptive Systems Dynamics Can Be Related to Understanding and Modeling Terrorist Behavior," Santa Fe Institute, April 10-11, 2003.
- Invited Speaker, "The use of epidemiological approaches in the study of the deliberate release of biological agents and their consequences," Advanced Concepts Group, Sandia National Laboratory, Albuquerque, NM, May 16, 03.
- Key Note Speaker, "Beyond means, numbers and proofs: the role of mathematics and statistics in the empowerment of our nation." Math & Stats Graduation, University of New Mexico, May 16, 03.
- Invited Speaker, "Challenges and opportunities posed by emergent and re-emergent diseases: the role of theoretical, modeling and computational approaches," NIEH Workshop on "Computational System Biology," MCNC, Research Triangle, North Carolina, October 8-10, 2003.
- Keynote speaker, at the 2003 Institute on Teaching & Mentoring, The COMPACT for Faculty Diversity, Southern Regional Educational Board, Miami, Florida October 31, 2003.
- Invited Panelist, "The Role of Professional Societies in Student and Faculty Development," The COMPACT for Faculty Diversity, Southern Regional Educational Board, Miami, Florida, November 1, 2003.
- Invited Speaker on the subject of Hispanics in science and engineering Board on Higher Education and Workforce, The National Research Council, The National Academies, Washington, DC, November 13, 03.
- Plenary speaker, "Problems at the interface of epidemics and homeland security," Harvey Mudd College Mathematical Biology, Claremont, California, on Saturday, November 8, 2003.

2002

- Invited Speaker, "The Use of Epidemiological Models on the Spread of Disease, Drugs and Addiction," NIGMS 40th Anniversary Symposium, at SACNAS Annual Confer, 9, 28-2002.
- Invited Speaker, "The Role of Public Transportation in the Spread of Tuberculosis," Infectious Diseases Symposium (Other Than AIDS), XVI IEA World Congress of Epidemiology Montreal, Canada, August 18-22, 2002.
- Invited Lecturer, "Basic Models for Tuberculosis," Summer School on BioMath, Centro Internacional de Matemática, Lisbon, Portugal, July 15-19, 2002
- Invited Lecturer, "Models for Tuberculosis with close and casual contacts," Summer School on BioMath, Centro Internacional de Matemática, Lisbon, Portugal, July 15-19, 2002.
- Invited Speaker, "Cooperative Behavior and Peer Pressure: the dynamics of ideologically driven groups," Special Sessions on the Applications of Mathematics to the study of the Deliberate Release of Biological Agents and Related Topics, SIAM 50th Anniversary and 2002 Annual Meeting in Philadelphia, July 8 – 12, 2002.
- Invited Lecturer, "Epidemiological approaches in the study of the impact of peer pressure in sociological processes," Summer School on BioMath, Centro Internacional de Matemática, Lisbon, Portugal, July 15-19, 2002
- Invited Lecturer, "Discrete Epidemic Models and Dispersal," Summer School on BioMath, Centro Internacional de Matemática, Lisbon, Portugal, July 15-19, 2002

- Invited Speaker, Center for Discrete Mathematics and Theoretical Computer Science (DIMACS), International Conference on Computational and Mathematical Epidemiology, June 28, 2002 - July 2.
- Invited Lecturer, Workshop on Disease Modeling, Center for Discrete Mathematics and Theoretical Computer Science (DIMACS), June 24-27, 2002.
- Key Note Speaker, SIDIM 2002, Inter American University of Puerto Rico San German, Puerto Rico, (22 and 23 of February 2002)
- Luncheon Speaker, "Mathematics, Germs, Drugs and Disease," The Fifth Annual University Conference Series, City College, NY, April 19-19, 2002.
- Invited Presenter, "Comments on Models and Bioterrorism," at the Conference on modeling bioterrorist agents, held at The MITRE Corporation, The Hayes Building, MITRE 7525 Colshire Dr. McLean VA 22102 MARCH 12-13, 2002.
- Seminar Speaker, "Mathematics in the Science Curriculum and Undergraduate Research Opportunities at Cornell University," Universidad Metropolitana, Rio Piedras, Puerto Rico, February 25, 2002.
- Seminar Speaker, "Models for Collaborative Learning, Drug use and the spread of ideologies." Department of Mathematics, University of Iowa, April 6, 2002.
- Seminar Speaker, "Germs, Drugs, Disease and Policy," Universidad de Colima, January 2002.

2001

- Invited Speaker, "Mathematical and Theoretical Biology Institute," The National Human Genome Research Grantee Workshop, Bethesda, MD, Nov. 28, 2001 (NHGRI, NIH).
- Invited Presentation, "Epidemiological Approaches in the study of peer-driven behavior," NIAAA. National Institutes of Health, Bethesda, MD, October 11, 2001.
- Vigre Interdisciplinary Colloquium Speaker, "Mathematics and Tuberculosis," Mathematics Department, Cornell University, October 2001.
- Invited Speaker, "Tuberculosis models with fast and slow dynamics: The role of close and casual contacts," Conference to honor the life and work of John Jacquez, University of Michigan, October 19-21, 2001.
- Keynote Speaker, "Mathematics, Germs, Drugs, Disease, Globalization, and Politics," SACNAS National Conference, Sept. 29, 2001, Phoenix, AZ.
- Mathematical Biology Seminar Speaker, "Role of Peer Pressure on Social Communities," Department of Mathematics, Arizona State University, Sept. 28, 2001.
- Keynote Speaker, "Tradition and Culture: The Key to Survival and Good Science," NM-AGEP Conference Program in Transitions in the Opportunities and Challenges of Diversity in Higher Education, New Mexico State University, Las Cruces, NM, Sept. 12, 2001.
- Seminar in Computational Biology Speaker, "Mathematical Models in Ecology and Epidemiology," UCLA, May 30, 2001.
- Plenary Speaker, "Mathematical Models for Tuberculosis and Connections to Data," The Fifth Mississippi State Conference will be hosted by Mississippi State University, May 18-19, 2001.
- Special Session Speaker, "Nonlinear Discrete-Time Pair Formation Models, Special Session, "Asymptotic Behavior of Difference Equations with Applications, annual meeting of the American Mathematical Society, New Orleans, Louisiana, January 10 - 13, 2001.
- Seminar Speaker, "Mathematics Models for Tuberculosis and Connections to Data," Mathematics Department, Howard University, Washington, DC (4/1/01)
- Stoll Lectures Speaker, Department of Mathematics, University of Akron, Akron Ohio. Six Lectures in Mathematical Epidemiology, March 28-31, 2001.
- Invited Speaker, "REU Research in the biological and Natural Sciences at MTBI," Arizona State University, May 7, 2001.

2000

- Key Note Speaker, "Tradition: the Key to Survival," Eleventh Undergraduate Research Symposium, Universidad Metropolitana, San Juan Puerto Rico, October 20-22, 2000.

- Special Session Invited Speaker, “Dispersal, Disease and Life-History Evolution,” Special Session, Nonlinear Differential Equations and Applications, American Mathematical Society, Birmingham, Alabama, November 10-12, 2000.
- Special Session Invited Speaker, “The role of behavior, mobility and public transportation on the spread of tuberculosis,” Special Session, Mathematical Problems in Epidemiology, 2000 SIAM, Annual Meeting, Puerto Rico, July 10-14, 2000.
- Invited Seminar Speaker, “Disease, Dispersal and Epidemic Models,” Colloquium, Mathematics Department, RPI, Troy New York, November 10, 2000.
- Invited Seminar Speaker, “Models for the transmission dynamics of Tuberculosis,” Department of Mathematics, National University of Ireland at Maynooth, June 8, 2000.
- Invited Seminar Speaker, “Dispersal, Epidemiology and Disease Evolution,” BUDS Seminar, Cornell University, Nov. 9, 2000

1999

- Pacific Institute for Mathematical Sciences Invited Lecturer, 1999-Summer School in Mathematical Biology, “Cross-immunity and Co-evolution in Epidemiology,” Vancouver, CA, 7-99.
- Pacific Institute for Mathematical Sciences Invited Lecturer, 1999-Summer School in Mathematical Biology, “Modeling Contact Structures in Biology and Their Application to the Dynamics of HIV Among Prostitution in Tijuana, Mexico,” Vancouver, CA; 7-99.
- Pacific Institute for Mathematical Sciences Invited Lecturer, 1999-Summer School in Mathematical Biology, “Potential Mechanisms for Disease Evolution: The Case of the Re-emergence of Tuberculosis,” Vancouver, CA; 7-99.
- Distinguished Lecturer, “Course in Mathematical Epidemiology,” three-month, 36-hour course for mathematics majors and high school mathematics teachers, Universidad de Tlaxcala, Apizaco, Tlaxcala, México, November 1998-January 1999.
- Invited Speaker, “The use of mathematical models to study the spread of epidemics,” EHR-Division, NSF, May 10, 1999.
- Invited Speaker, “Public transportation and disease evolution,” the University of Michigan/Santa Fe Institute Conference on Complex Systems. Ann Arbor, Michigan, Nov. 11-13, 1999.
- Invited Speaker, “Estructuras de aparamiento y su importancia en la dinámica poblacional,” Primer Minicongreso del Departamento de Métodos Matemáticos y Numéricos, IIMAS, UNAM, México, January 22, 1999.
- Invited Class Lecture, “On epidemiology,” BioES 261 on Friday (8 Oct).
- Invited Seminar Speaker, “Potential mechanisms for the Re-emergence of Tuberculosis,” TAM, Cornell University, April 1999.
- Invited Seminar Speaker, “Changing Social Landscapes and Disease Evolution: the case of Tuberculosis,” Regional Science Seminar Speaker Series. Joint speaker: Carlos Castillo-Garsow (Department of Biometrics, Cornell University), Cornell University, 12/1/99.

1998

- Mathematics Consortium’s 1998 Summer School Speaker, “Cross-immunity in Epidemiology,” July 6-17, 1998, University of Wyoming, Laramie, WY.
- Mathematics Consortium’s 1998 Summer School Speaker, “The role of public transportation on the spread of communicable diseases, the case of Tuberculosis,” July 6-17, 1998, University of Wyoming, Laramie, WY.
- Mathematics Consortium’s 1998 Summer School Speaker “Models for HIV Dynamics,” July 6-17, 1998, University of Wyoming, Laramie, WY.
- Invited Lecturer, “Summer Course in Mathematical Biology”, 4-week research experience for undergraduates, Centro Intenacional de Ciencias, Cuernavaca, Morelos, México, July 1998
- First Distinguished Lecture Series Speaker, “Mathematical Models for the Spread of Tuberculosis,” Department of Mathematics, Memphis State University, March 27, 1998.

- Plenary Speaker, “The role of public transportation on the evolution of Tuberculosis,” Dynamical Roles of Feedback Circuits and Related Topics, Universidad Autónoma del Estado de Morelos, Cuernavaca, Morelos, November 30-December 4, 1998, México.
- Invited Speaker, “A model for mentoring faculty,” Encuentro de Investigación y Docencia en Biología Matemática, Universidad Autónoma Metropolitana-Iztapalapa, Mexico, April 15-17, 1999
- Invited Special Session Speaker, “The role of public transportation on the spread of tuberculosis,” AAAS, Medicine and Public Health, Special Session “The Mathematics of Epidemics and Disease”, January 22, 1998.
- Invited Special Session Speaker, “Retraining of Nurses by Peers,” II Congreso Panamericano de Infecciones Intrahospitalarias, April 21, 1998, Mar de Plata, Argentina.

1997

- Invited Seminar Speaker, “Mathematical Models in Epidemiology, two case studies: Tuberculosis in Buenos Aires and HIV/AIDS in Tijuana, Mexico,” Harvard School of Public Health, October 23, 1997.
- Invited Lecturer, Short course in Mathematical Models in Biology, Universidad de Caldas, Manizales, Colombia, (November 1997).
- Invited Speaker, “Programas de investigación de pregrado para estudiantes de origen latino y latinoamericano en el departamento de Biometría en Cornell,” Jornada de Investigación y Primer Encuentro de la Red Mulis, Universidad Autónoma de Occidente, Cali, Colombia, September, 1997.
- Invited Speaker, “EL uso de los modelos matemáticos en la epidemiología,” Jornada de Investigación y Primer Encuentro de la Red Mulis, Universidad Autónoma de Occidente, Cali, Colombia, September 1997.
- Invited Lecturer, Short course in Mathematical Biology, Universidad del Valle, Cali, Colombia (November 1997).
- Invited Lecturer, Short course in Epidemiology: Eight International Congress in Biomathematics. ALAB, Panama City, Panama (August 1997).
- Plenary Talk, “Conceptos Básicos en Epidemiología Teórica,” Octavo Congreso Internacional de Biomatemáticas, Panama City, Panama, August 1997.
- Plenary Talk, “Modelos para la dinámica de la transmisión de la tuberculosis,” Smithsonian Institute, Panama City, Panama, August 1997.
- Invited Lecturer, Short Course in Epidemiology, Jornada de Biomatemáticas. Universidad del Quindío, Armenia, Colombia (May 1997).
- Invited Lecturer, “Topics in Mathematical Epidemiology” three-day course. Universidad Autónoma de Occidente, Cali, Colombia, May, 1997.
- Invited Talk, “Modelos matemáticos para la dinámica de transmisión del VIH en prostitutas en la ciudad de Tijuana,” Primer Seminario Estatal en Salud Pública, Colegio de la Frontera Norte and Universidad Ibero-Americana, Tijuana, Mexico, November 1997.
- Plenary Talk, “Tuberculosis,” Primer Seminario Estatal en Salud Pública, Colegio de la Frontera Norte and Universidad Ibero-Americana, Tijuana, Mexico, November 1997.
- Special Session Invited Speaker, “Modelos para la evolución de Tuberculosis: el impacto del transporte público,” XXX Congreso Nacional de la Sociedad Matemática Mexicana, Aguascalientes, México, September 28 – October 3 1997.
- Special Session Invited Speaker, “El uso de modelos matemáticos en epidemiología” V Encuentro Regional de Matemáticas y X Evento Académico de Matemáticas, Universidad del Cauca, Popayan, Colombia, Nov. 21, 1997.
- Special Session Invited Speaker, “Proyecto de formación de Latinoamericanos en biomatemáticas en Cornell” V Encuentro Regional de Matemáticas y X Evento Académico de Matemáticas, Universidad del Cauca, Popayan, Colombia, Nov. 21, 1997.

- Key Note Speaker, "Excellence in education building opportunities for our youth," Hispanic Heritage Month Unity Dinner, Latino Studies Program, Cornell University, Friday, Oct.24, 1997.
- Invited Lecturer, Short Course in Mathematical Epidemiology, Dept. of Mathematics and Statistics: Summer School of Mathematics, Universidad Nacional de Colombia and Universidad de Los Andes (July-August, 1997), Bogota, Colombia.
- Invited Seminar Speaker, "Transient relations and their effect on the selection of "Mr. or Ms. Right," Department of Mathematics, University of Puerto Rico, Humacao, April, 1997.
- Invited Seminar Speaker, "Mathematical Models in Biology," Department of Mathematics, University of Puerto Rico, Cayey, April 1997.
- Invited Seminar Speaker, "Is fate a factor in dating," Biostatistics Laboratory, University of Texas, El Paso, TX, April 1997.
- Invited Seminar Speaker, "Questions and Answers about Graduate School," Club Zero, University of Texas, El Paso, TX, April, 1997.
- Invited Seminar Speaker, "Mathematical Models in Epidemiology," Howard Hughes Program, University of Puerto Rico, Cayey, September 1997.
- Invited Seminar Speaker, "Mathematical Models in the Study and Control of Infectious Diseases," Graduate School, Colegio de la Frontera Norte, Tijuana, México, March, 1997.
- Invited Seminar Speaker, "On Mathematical Ecology," Graduate School, Colegio de la Frontera Norte, Tijuana, México, March 1997.
- Invited Lecturer, Short Course, Topics in Theoretical Epidemiology: the case of sexually transmitted diseases, Colegio de la Frontera Norte, Tijuana, Mexico (March 1997).
- Invited Seminar Speaker, "Mathematical Models in the Study and Control of Infectious Diseases--PART I." Colegio de la Frontera Norte and Universidad Ibero-Americana, Tijuana, Mexico, March 1997.
- Invited Seminar Speaker, "Mathematical Models in the Study and Control of Infectious Diseases--PART I.I" Colegio de la Frontera Norte and Universidad Ibero-Americana, Tijuana, Mexico, March 1997.
- Invited Seminar Speaker, "Mathematical Models in the Study and Control of Infectious Diseases--PART III." Colegio de la Frontera Norte and Universidad Ibero-Americana, Tijuana, Mexico, March 1997.
- Invited Seminar Speaker, "Two case studies: HIV and Tuberculosis." Colegio de la Frontera Norte and Universidad Ibero-Americana, Tijuana, Mexico, March 1997.
- Invited Seminar Speaker, "El papel del transporte público y otros factores en la evolución de enfermedades comunicables: El caso de la Tuberculosis y la Influenza," Departamento de Matemáticas, Universidad del Valle, Cali, Colombia, Noviembre 26, 1997.
- Invited Seminar Speaker, "La enseñanza de los cursos de cálculo en USA", Departamento de Matemáticas, Universidad del Valle, Cali, Colombia, Noviembre 25, 1997.
- Invited Seminar Speaker, "Transient relations and their effect on the selection of "Mr. or Ms. Right." Population and Development Program, Dept. of Rural Sociology, Cornell University, February 1997.

1996

- Distinguished Lecture Series, Profesor Suramericana, Suramericana de Seguros, Bogota, Colombia. (7/28-8/1/96).
- Invited Lecturer, "Mathematical Epidemiology," a one-week course. Fourth Summer School, Dept. of Mathematics and Statistics, Universidad Nacional de Colombia, Bogota, Colombia, July 28-Aug. 1, 1996.
- Invited Lecturer, "Workshop on Co-evolution with Applications to Epidemiology," a two-week workshop for biologists, statisticians, and mathematicians. Facultad de Ciencias, Universidad Autónoma de Mexico, May 1996.
- Plenary Talk, "Un estudio cualitativo comparativo de la importancia de los factores epidemiológicos and sociológicos en la dinámica de transmisión del VIA (Virus de

Immunodeficiencia Adquirida)." Primer Encuentro Puertorriqueno de Estadísticos, University of Puerto Rico, Rio Piedras, Puerto Rico, April 1996.

- Invited Seminar Speaker, "Social Dynamics and AIDS." Dept. of Biostatistics, Case Western Reserve University, April 1996.
- Invited Seminar Speaker, "Pair formation models in demography and epidemiology." Department of Mathematics, Purdue University, West Lafayette, Indiana, 1996.
- Invited Seminar Speaker, "El uso de los modelos matemáticos en epidemiología," Departamento de Matemáticas, Universidad de Puerto Rico, Humacao, Puerto Rico, April 1996.
- Invited Seminar Speaker, "The Social Spread of Disease: the Cases of HIV/AIDS and Tuberculosis in Mexico and Argentina," Latin American Studies Program Seminar Series, February 1996.
- Invited Seminar Speaker, "Did we catch Mr. or Ms. Right?" Animal Breeding Seminar Series, Cornell University, October 1996.
- Invited Seminar Speaker, "Models for the transmission dynamics of Tuberculosis," Bill Sears Club, Center for Applied Mathematics, Cornell University, October 1996.
- Invited Seminar Speaker, "The role of divorce/separation rates on the evolution of mating systems," Biometrics Unit Dept. Series (BUDS), Cornell University, October 1996.

1995

- Invited Seminar Speaker, "To Treat or not to Treat: the Case of Tuberculosis," Dept. of Mathematics, Arizona State University, AZ, Nov., 1995.
- Invited Seminar Speaker, "Mathematical Models in Epidemiology." Dept. of Applied Mathematics, Caltech University, Pasadena, CA, May 1995.
- Invited Seminar Speaker, "The Role of Co-Evolution in Epidemiology." Dept. of Biology, Caltech University, Pasadena, CA, May 1995.
- Invited Seminar Speaker, "Social Structure and the Dynamics of HIV/AIDS." Dept. of Humanities and Social Sciences, Caltech University, Pasadena, CA, May 1995.
- Invited Seminar Speaker, "Mathematical Models in Epidemiology." Department of Statistics, University of Bern, Switzerland 1995.
- Invited Speaker, "My Life as a Presidential Faculty Fellow." SACNAS. El Paso, TX, 1995.
- Invited Lecturer: Lecture in Mathematical Epidemiology. Centro de Investigación de Salud Pública del Instituto Nacional de Salud Pública, Cuernavaca, Morelos, Mexico, 1995.
- Invited Lecturer, "Epidemiología y Demografía Teórica y sus Aplicaciones a la Salud " Centro de Investigación de Salud Pública del Instituto Nacional de Salud Pública, Cuernavaca, Morelos, Mexico, 1995.
- Plenary Speaker, "Co-evolution of Pathogens," 4th International Conference on Mathematical Population Dynamics, Rice University, 1995.
- Key Note Speech, "Science, Diversity and Affirmative Action," Semana Latina, Caltech University, Pasadena, CA., 1995.
- Invited Speaker, "Factors Affecting the Predictions of HIV/AIDS Prevalence: The Role of Social Dynamics." Health and Human Development Department and Center for Population Research, Hispanic Heritage Month, Penn State University, PA. 1995.
- Invited Special Session Speaker, "Epidemiology and Behavior: the HIV/AIDS Epidemic." ICIAM, Special Session in Epidemiological Models, Hamburg, Germany, 1995.
- Invited Lecturer, "Epidemiología y Demografía Teórica y sus Aplicaciones a la Salud Pública." Ten-hour course/seminar for biologists, epidemiologists, statisticians, public health experts, and other scientists. Belgrano University, Buenos Aires, Argentina, August 1995.
- Invited Lecturer, "Epidemiología y Demografía Matemática": A 20-hour course/seminar for biologists, statisticians, and mathematicians. Facultad de Ciencias, Universidad Autónoma de México, June 1995.
- Invited Lecturer, "Demografía Teórica": A 4-hour course/seminar for sociologists, statisticians, and other scientists. Colegio de la Frontera Norte, Tijuana, México, May 1995.

- Invited Speaker, "The Politics of Representation in the Sciences: Why is it Important to be a Latino Scientist?" Ithaca College, NY, Nov. 1995.
- Invited Seminar Speaker, What can a Mathematician tell you about the HIV/AIDS Epidemic." CAL State, Los Angeles, CA, 1995.
- Invited Seminar Speaker, "To Treat or not to Treat: The Case of Tuberculosis." Bill Sears Club, Center for Applied Mathematics, Cornell University, 1995.
- Invited Seminar Speaker, "The Politics of Representation in the Sciences: Why is it important to be a Latino Scientist?" Science Organization for Latinos, Cornell University, December 1995.

1994

- Invited Seminar Speaker, "Social Dynamics and Epidemiology: The HIV/AIDS Epidemic." Dept. of Biology, Princeton University, NJ, March, 1994.
- Invited Lecturer: Lectures in Mathematical Epidemiology, International Congress in Biomathematics, III Encuentro Latinoamericano de Ecología Matemática, Universidad Nacional de Lujan, República Argentina, 1994.
- Invited Special Session Speaker, "On the Existence of Stable Paired Distributions in Demography." First World Congress on Computational Medicine, Public Health and Biotechnology, Austin, TX, 1994.
- Invited Seminar Speaker, "Factores Epidemiológicos y Sociales en la Dinámica del SIDA," Centro de Investigación de Salud Pública del Instituto Nacional de Salud Pública, Cuernavaca, Morelos, Mexico, July, 1994.
- Invited Seminar Speaker, "Evolución de Micro-organismos en Poblaciones Heterogéneas," Centro de Ecología de la Universidad Autónoma de México, Ciudad Universitaria, México, July 1994.
- Invited Speaker, "Epidemiological Models: Part I," International Congress in Biomathematics, III Encuentro Latinoamericano de Ecología Matemática, Universidad Nacional de Lujan, República Argentina, August 1994.
- Invited Speaker, "Epidemiological Models: Part II," International Congress in Biomathematics, III Encuentro Latinoamericano de Ecología Matemática, Universidad Nacional de Lujan, República Argentina, August 1994.
- Invited Speaker, "Epidemiological Models: Part III," International Congress in Biomathematics, III Encuentro Latinoamericano de Ecología Matemática, Universidad Nacional de Lujan, República Argentina 1994.
- Invited Seminar Speaker, "Sociology meets epidemiology: the AIDS epidemic," Belgrano University, Buenos Aires, Argentina, August 1994.
- Invited Seminar Speaker, "Co-evolution: The case of influenza and myxomatosis," Instituto de Investigaciones Bioquímicas-Fundación Campomar, Buenos Aires, Argentina, August 1994.
- Invited Seminar Speaker, "The use of epidemiological models in biology," Instituto Nacional de Investigaciones Agropecuarias, Buenos Aires, Argentina, August 1994.
- Summer Invited Workshop Presentation, "Why have I chosen to do research in mathematical biology?" Department of Education, Cornell University, September 1994.
- Invited Seminar Speaker, "Views on Affirmative Action." Cornell University Chaplains, 1994.

1993

- Invited Speaker, "Mathematical Models for pair formation." Seminar Angewandte Mathematik, Institut für Biologie II, Tübingen University, Tübingen, Germany, 1993.
- Invited Lecturer: Sixth International Congress in Biomathematics. Short course in Epidemiology, San Jose de Costa Rica.
- Community Lecture, "The Role of Social Dynamics in HIV/AIDS," Northeast Chapter of SACNAS, Cornell University, Ithaca, NY, 1993.
- Invited Seminar Speaker, "Marriage Functions in Open Networks: the Case of Sexually-Transmitted Diseases." RIVM, Bilthoven, National Institute of Public Health and Environmental Protection, The Netherlands 1993.

- Invited Seminar Speaker, "Role of Biases on the Study of the Dynamics of Sexually-Transmitted Diseases." Centrum voor Wiskunde en Informatica, Amsterdam, the Netherlands, 1993.
- Invited Speaker, "On the Solution of the Two-Sex Problem or it takes two to Tango." Conference on "Quantitative Methods for Studying AIDS. Sponsored by SIMS. Heinrich-Fabri-Institut, Conference Center, Tübingen University, Blaubeuren, Germany, 1993.
- Invited Speaker, "Mixing Functions in Open Social Networks: the Case of Sexually Transmitted Diseases." WELCOME Research Centre Seminar Programme, Imperial College of Science and Technology, London, England, 1993.
- Distinguished Speaker, "Investigator's Biases, Social Dynamics and the HIV/AIDS Epidemic." Speaker - Kieval Harry S. Distinguished Lecture Series, Humboldt State University, 1993.
- Invited Seminar Speaker, "Mathematical Models in Epidemiology." Colloquium Series, Department of Mathematics, Humboldt State University, 1993.
- Invited Speaker, "Efectos de la estructura social en la dinámica de poblaciones." II Coloquio Latinoamericano de Análisis. Bogota, Colombia, November 1993.
- Invited Speaker, "Modelos con estructura social y el SIDA," Departamento del Hombre y su Ambiente, Biomathematics Club, Universidad Metropolitana-Xochimilco, México City, México, December 1992.
- Invited Speaker, "Modelos matemáticos en la epidemiología," Sexto Congreso Internacional en Biomatemáticas, San José de Costa Rica, October 1993.
- Invited Seminar Speaker, "SIDA." Seminario de Biomatemáticas en el ciclo sobre Epidemiología Matemática, Facultad de Ciencias, Departamento de Matemáticas, Universidad Nacional Autónoma de México, México City, December 1993.
- Invited Speaker, Closing Remarks, Conference "Hispanics by Profession," Hispanic American Studies Program, Cornell University, February 1993.

1992

- Invited Lecturer: International Course in Epidemiology, Ministerio de Salud de México, and Harvard University, 1992.
- Invited Speaker, "Social Dynamics meets Biology: The AIDS Epidemic." Gordon Conference, 1992.
- Plenary Speaker, "Social Dynamics Meets Epidemiology," 3rd International Conference on Mathematical Population Dynamics, University of Pau, France, 1992.
- Invited Seminar Speaker, "Social Dynamics and the HIV/AIDS Epidemic." Biology Colloquium, California State University at Northridge, NIH-M.A.R.C. Program, 1992.
- Invited Distinguished Speaker, "Marriage Functions: Theory and Applications." Institute for Theoretical Dynamics, Center for Population Biology, and Graduate Group in Epidemiology. Distinguished Minority Visiting Scholar Program. University of California, Davis, 1992.
- Invited Distinguished Speaker, "Sociology Meets Epidemiology: A unified Approach to Modeling Sexually-Transmitted Diseases." Institute for Theoretical Dynamics, Center for Population Biology, and Graduate Group in Epidemiology. Distinguished Minority Visiting Scholar Program. University of California Davis, 1992.
- Invited Seminar Speaker, "Social Dynamics and AIDS: The Effects of Social Structure on the Dynamics of Sexually-Transmitted Diseases." Graduate School of Public Affairs, University of Colorado, Denver, CO, 1992.
- Invited Seminar Speaker, "Epidemic Models, Socio-Dynamics and AIDS." Occidental College, CA, 1992.
- Invited Seminar Speaker, "Obstacles to Predicting HIV Incidence and Prevalence: The Effects of Social Dynamics." INSERM-U 263 (Paris VII), Paris, France, 1992.
- Invited Seminar Speaker, "Epidemics and the Dynamics of HIV/ AIDS." CAL State Northridge, CA, 1992.
- Invited Seminar Speaker, "Marriage Functions in Demography," Rural Sociology and Population Development Seminar, Cornell University, January 1992.

1991

- Distinguished Invited Lecturer, National Research Council of Taiwan, Series of Lectures at various universities and institutes, Taiwan 1991.
- Invited Seminar Speaker, "Cross-immunity and Influenza." Department of Mathematics, Tsing Hua University, Taiwan, June 1991.
- Invited Seminar Speaker, "Epidemiological models for communicable diseases. Part 1," Department of Applied Mathematics, National Chung-Hsing University, Taichung, Taiwan, June 1991.
- Invited Seminar Speaker, "Epidemiological models for communicable diseases. Part 2," Department of Applied Mathematics, National Chung-Hsing University, Taichung, Taiwan, June 1991.
- Invited Seminar Speaker, "Models for sexually-transmitted diseases. Part 1," Department of Applied Mathematics, National Chung-Hsing University, Taichung, Taiwan, June 1991.
- Invited Seminar Speaker, "Models for sexually-transmitted diseases. Part 2," Department of Applied Mathematics, National Chung-Hsing University, Taichung, Taiwan, June 1991.
- Invited Seminar Speaker, "Modeling the processes of pair-formation and dissolution. Part 1," Department of Applied Mathematics, National Chung-Hsing University, Taichung, Taiwan, June 1991.
- Invited Seminar Speaker, "Modeling the processes of pair-formation and dissolution. Part 2" Department of Applied Mathematics, National Chung-Hsing University, Taichung, Taiwan, June 1991
- Distinguished Invited Speaker, "Determinism in Biology: The Case of the AIDS Epidemic." Pitzer College Lecture Series on Science, Technology, and Disaster, Pitzer College, Claremont California, 1991.
- Invited Speaker, "On the Estimation of Mixing/Pair Formation Matrices." Conference on "Statistical Methodology for the Study of the AIDS Epidemic. Sponsored by SIMS (Societal Institute of the Mathematical Sciences), Mathematics Sciences Research Institute, and Berkeley, CA, 1991.
- Invited Speaker, "On the Simulation of Social Dynamics." Workshop on Epidemiological Modeling, Pittsburgh Supercomputing Center, 1991.
- Invited Seminar Speaker, "Determinism in Epidemiological Systems." Department of Mathematics, Arizona State University, AZ, 1991.
- Invited Seminar Speaker, "Generalization of the Mass-Action Law and Their Application to Epidemiological Models." Department of Physics, New York University at Stony Brook, NY, 1991.
- Invited Seminar Speaker, "Can there be a marriage function?" Bill Sears Club, Center for Applied Mathematics, October, 1991.

1990

- Invited Seminar Speaker, "The Effects of Pair Formation in the Dynamics of Sexually-Transmitted Diseases." Centre for Mathematical Biology, Oxford University, England, 1990.
- Distinguished Invited Speaker, "Driving Mechanisms for the AIDS Epidemic." Hollistier-Stier Distinguished Lecture Series, Washington State University, 1990.
- Distinguished Invited Speaker, "The Effects of Proportional and Non-proportional Mixing in the Dynamics of Sexually-Transmitted Diseases." Hollistier-Stier Distinguished Lecture Series, Washington State University, 1990.
- Invited Speaker, "The Use of Mathematics in the Fight against AIDS: A Personal Perspective." Conference for Ford Foundation Fellows, National Academy of Sciences, Irvine, California, 1990.
- Invited Special Session Speaker, "Epidemiological Models for Sexually-Transmitted Diseases." International Conference on Differential Equations and Applications to Biology and Population Dynamics, Claremont, California, 1990.

- Invited Special Session Speaker, "The Effects of Variable Population Size on the Dynamics of Sexually-Transmitted Diseases." Dynamical Systems Mini-symposium, Summer Meeting of SIAM, Orlando, Florida, 1990.
- Invited Seminar Speaker, "Uso de modelos matemáticos en la epidemiología del SIDA," Department of Mathematics, Universidad del Sagrado Corazon, San Juan, Puerto Rico, 1990.
- Invited Seminar Speaker, "Los efectos de la estructura social en la propagación del SIDA," Department of Mathematics, Universidad de Puerto Rico, Rio Piedras, Puerto Rico, 1990.
- Invited Seminar Speaker, "Modelos matemáticos para la propagación del SIDA," Department of Mathematics, Universidad de Puerto Rico, Humacao, Puerto Rico, 1990.
- Invited Seminar Speaker, "Estimación empírica de las probabilidades de contacto sexual en sociedades estructuradas," Joint Statistics and Applied Mathematics Seminar of the IIMAS of the Universidad Nacional Autónoma de México, México City, June 1990.
- Invited Seminar Speaker, "Modelos con estructura social para la propagación de enfermedades venéreas," Applied Mathematics Seminar, IIMAS, Universidad Nacional Autónoma de México, México City, June, 1990.
- Invited Seminar Speaker, "Modelos para enfermedades transmitidas por vectores con énfasis en el dengue," Centro de Estudios Avanzados del Instituto Politécnico Nacional, June 1990.
- Invited Seminar Speaker, "Modeling the AIDS Epidemic," Rural Sociology and Population Development Seminar, March 1990.

1989

- Invited Speaker, "Effects of Social Mixing in the Spread of HIV/AIDS." Workshop on Mathematical Models for Infectious Diseases. Forschungsinstitut Oberwolfach, Germany, 1989.
- Invited Speaker, "Predicting the Dynamics of Epidemics." European Symposium on High Performance Computing, Montpellier, France, 1989.
- Special Session Invited Speaker, "Models for the Sexual Transmission of HIV/AIDS," V International Conference on AIDS, Montréal, 1989.
- Invited Speaker, "Pair Formation and Force of Infection in Models for Sexually-Transmitted Diseases." Workshop on Differential Equations and Applications, Volksbildungshaus Retzhof, Leibniz, Austria, 1989.
- Invited Speaker, "Models for the Spread of Sexually-Transmitted Diseases with General Social Structure and Variable Infectivity." Fifth IMA Conference on the Mathematical Theory of The Dynamics of Biological Systems, Keble College, Oxford University, England, 1989.
- Invited Special Session Speaker, "On a Theory of Aggregation and Mixing for Epidemiological Models for the Spread of HIV/AIDS." AIDS Modeling Symposium, Summer Meeting of SIAM, (Society for Industrial and Applied Mathematics), San Diego, CA, 1989.
- Invited Special Session Speaker, "The Role of a Decreasingly Sexually-Active Population and its Social Structure in the Dynamics of AIDS." Operations Research Meeting (ORSA TIMS), Session in Recent Progress in AIDS Models, New York City, 1989.
- Invited Seminar Speaker, "A Social/Sexual Mixing Framework for the Dynamics of Sexually-Transmitted Diseases." INSERM-U 263 (Paris VI and VII), Paris, France, 1989.
- Invited Seminar Speaker, "The Role of Long Periods of Incubation in the Dynamics of HIV/AIDS." INSERM-U 170 (Collaborating Center for the World Health Organization), Paris, France, 1989.
- Invited Seminar Speaker, "Modeling the AIDS Epidemic." Center for Applied Mathematics, University of Southern California, Los Angeles, CA, 1989.
- Invited Seminar Speaker, "Models for Sexually-Transmitted Diseases with Social Structure." Department of Mathematics, Arizona State University, AZ, 1989.
- Invited Seminar Speaker, "El efecto de la cross-inmunidad en la propagación de la influenza," Centro de Estudios Avanzados del Instituto Politécnico Nacional, March 1989.
- Invited Seminar Speaker, "Los efectos de la estructura social en la propagación del SIDA" Centro de Estudios Avanzados del Instituto Politécnico Nacional, March 1989.

- Invited Seminar Speaker, "Tres modelos matemáticos epidemiológicos simples," Escuela Superior de Física y Matemáticas del Instituto Politécnico Nacional, March 1989.
- Invited Speaker, "Modelos con estructura social para la propagación del SIDA," II Congreso Nacional sobre SIDA, México, D.F., México, Nov., 1989.
- Invited Seminar Speaker, "AIDS Modeling Project at Cornell." Center for Applied Mathematics, Cornell University, September 1989.
- Invited Seminar Speaker, "Effects of Social Structure in Disease Transmission." Epidemiology Forum, Cornell University, December 1989.

1988

- Invited Seminar Speaker, "The Role of Long Periods of Infectiousness and Variable Infectivity in the Dynamics of the HIV." New York Health Department, Albany, NY, 1988.
- Invited Speaker, "The Importance of Social Mixing in the Dynamics of HIV." First Autumn Workshop on Mathematical Ecology, Trieste, Italy, 1988.
- Invited Seminar Speaker, "Modelos matemáticos del SIDA: primera parte," Centro de Estudios Avanzados del Instituto Politécnico Nacional, June 1988.
- Invited Seminar Speaker, "Modelos matemáticos del SIDA: primera parte," Centro de Estudios Avanzados del Instituto Politécnico Nacional, June 1988.
- Invited Seminar Speaker, "Modelos matemáticos del SIDA: segunda parte," Centro de Estudios Avanzados del Instituto Politécnico Nacional, June 1988.
- Invited Seminar Speaker, "Modelos matemáticos y el SIDA," Escuela Superior de Física y Matemáticas del Instituto Politécnico Nacional, June 1988.
- Invited Seminar Speaker, "Modelos matemáticos sobre la propagación del SIDA," Instituto de Geofísica de la Universidad Nacional Autónoma de México, June 1988.
- Invited Speaker, "The Role of Long Periods of Incubation, Variable Infectivity, and Social Mixing in the Spread of HIV/AIDS." Ecology and Systematics Colloquium. Department of Ecology and Systematics, Cornell University, 1988.
- Invited Speaker, "The Role of Social Mixing in the Spread of AIDS." Seventh Annual Meeting of the Northeast Regional Science Association, Cornell University, October 1988.
- Invited Speaker, "The Role of Social Mixing in the Dynamics of HIV." Bill Sears Club, Center for Applied Mathematics, Cornell University, October 1988.

1987

- Invited Seminar Speaker, "Role of Cross-immunity in Epidemiological Models." Dept. of Biology, Princeton University, NJ, May 1, 1987.
- Invited Seminar Speaker, "The Role of Cross-Immunity in Viral Diseases: Myxomatosis, Influenza, and AIDS." Mathematical Biology Group, University of Iowa, 1987.
- Invited Seminar Speaker, "Models for HIV/AIDS Transmission." Mathematical Biology Group, Courant Institute of Mathematical Sciences, New York University, New York, NY, 1987.
- Invited Seminar Speaker, "Deterministic Models Arising in the Study of the Dynamics of Heterogeneous Populations: An Introduction," Bill Sears Club, Center for Applied Mathematics, Cornell University, April 1987.
- Invited Seminar Speaker, "Models for the spread of AIDS." Colloquium, Center for Applied Mathematics, Cornell University, December, 1987.
- Invited Seminar Speaker, "The Role of Heterogeneity in the Dynamics of Sexually-Transmitted Diseases." International Symposium on Mathematical Approaches to Environmental and Ecological Problems, Cornell University, October 1987.

1986

- Invited Speaker, "Cross-Immunity in the Dynamics of Homogeneous and Heterogeneous Populations." General Research Session, Second Autumn Course on Mathematical Ecology, Trieste, Italy, 1986.

1986-1994

- ICTP, Invited Lecturer: Autumn Courses in Mathematical Ecology, Trieste, Italy (1986, 1988, 1990, 1992 and 1994).

RESEARCH PANELS/Special Activities

2000-2009

- Scientific Advisory Board, "Follow-up meeting to, Mitigating the Spread of A/H1N1 Flu: Lessons Learned from Past Outbreaks," Vancouver, September 14-16, 2009
- Special Invited Lecture, "Travel, Mass Transportation and Emergent Diseases: SARS, Bioterrorism and Influenza," Ministry of Health, Brunei, June 9, 2009
- Invited Speaker/Panelist, "Drinking and Behavior: Dynamics at the Population Level," in Panel Changing existing behaviors, National Institutes of Health Science of Behavior Change Meeting, June 15-16, 2009, Marriott Hotel, 5151 Pooks Hill Road, Bethesda, MD
- Conference Co-organizer, "Mitigating the Spread of A/H1N1 Flu: Lessons Learned from Past Outbreaks," (<http://mcmasc.asu.edu/conferences/h1n1>) Arizona State University, June 25-28, Tempe, AZ, 2009.
- Special Sessions Co-Organizer, Mathematics of Influenza: Models for the Transmission Dynamics and Control of Seasonal and Pandemic Flu Outbreaks – (http://meetings.siam.org/sess/dsp_programsess.cfm?SESSIONCODE=9107) Part I-III (SIAM-DW), MS96, MS97 and MS98, Denver Colorado, July 7-10, 2009
- Conference Co-organizer, Conference in Honor of the 70th Birthday of Richard Tapia, Rice University, Houston, Texas, May 29th, 2009
- Conference Co-Organizer, Arizona, Los Alamos, and New Mexico Days Annual Meeting (<http://mcmasc.asu.edu/lad>), Tempe, AZ, January 29-31st, 2009
- Program Committee, 2008 Life Sciences SIAM meeting, August 2008, Montreal Canada
- Ministry of Education & Science, Madrid, Spain, Member, Evaluation's Committee for the Establishment of New Mathematics Institutes, 2/7/2008-2/10/2008
- Panel Member, "SIAM Conference on the Life Sciences" Montreal, Quebec, Canada, 8/3/2008-8/11/2008
- Review Team, "IGERT" NSF, Arlington, VA, NSF -DGE -8/13/2008-8/15/2008
- Review Team, "External Review Team", University of TX - San Antonio, San Antonio, TX, 8/28/2008-8/30/2008
- External Review Team, Mathematics Department Duke University, Raleigh/Durham, NC, 2/24/2008-2/26/2008
- External Review Team, Mathematics Department, NC State University, Raleigh, NC, 3/30/2008-4/2/2008
- Advisory Board Meeting, MIT, Boston, MA, MIT's Initiative on Faculty Race and Diversity, Advisory Board Meeting, 5/13/2008-5/14/2008
- Site Review Team Meeting, PhD in Computational Science Evaluation, University of TX - El Paso, El Paso, TX, 5/15/2008-5/16/2008
- Member Advisory Panel for the NSF Advancing Theory in Biology Competition, Arlington, VA, 5/27/2008- 5/30/2008
- Co-organizer/Host, NIAAA/PIRE Ecosystems Modeling Workshop, Santa Fe, NM, 2/11/2007 2/13/2007.
- Reviewer, DHS/STELLA, Biological Threat Risk Assessment Program, 2/19/2007 2/21/2007.
- Mathematics Alignment Team Member, Governor's P-20 Council, Mathematics Alignment Institute, Phoenix, AZ, 4/19/2007.
- Mathematics Alignment Team Member, Governor's P-20 Council, Mathematics Alignment Institute, Phoenix, AZ, 4/25/2007 4/27/2007.
- Mathematics Task Force, AZ Dept of Education, Phoenix, AZ, 6/6/2007 6/8/2007.
- Mathematics Alignment Team Member, Governor's P-20 Council, Mathematics Alignment

- Institute, Minneapolis, MN, 7/27/2007 7/31/2007
- Mathematics Alignment Team Member, Governor's P-20 Council, Mathematics Alignment Institute, Phoenix, AZ, 8/13/2007 8/16/2007
- Mathematics Alignment Team Member Testimonial, Governor's P-20 Council, Phoenix, AZ, 10/1/2007
- Leadership Meeting, FUMEC-Math Initiative, SACNAS, Kansas City, MO, 10/13/2007.
- Invited Panel Member, Ford Fellows/Scholar Activists, Conference of Ford Fellows, Fellowships Office of the National Academies, Irvine, CA, 10/4/2007 10/7/2007.
- Invited Participant, Red de Talentos Mexicanos, Consulado General de Mexico en Phoenix, Jornada Informativa IME, Mexico City, MX, 7/7/2007 7/10/2007.
- Invited Participant, SREB, Institute on Teaching & Mentoring, Arlington, VA, Sloan Foundation, 10/25/2007 10/27/2007.
- Member National Advisory Board, NAC Meeting, SAMSI, Raleigh/Durham, NC, 11/15/2007 11/16/2007.
- Invited Participant, NIH-NIAAA Workshop, Mechanism of Behavior Change, Los Angeles, CA, 11/26/2007 11/28/2007.
- Member MIT Advisory Diversity Committee, Meeting MIT Diversity Committee, Massachusetts Inst. Of Tech., Boston, MA, 12/9/2007 12/10/2007.
- Invited Participant, Conference on Integrating Differential Equations with Math Biology, MBI/The Ohio State Univ., Columbus OH, 11/16/2007 11/18/2007.
- NSF Panel Member, CRUI (Cross-disciplinary Research at Undergraduate Institutions) panel, October 7-8, NSF, Arlington, VA, 2004.
- NSF Panel Member, National Science Foundation Director's Award for Distinguished Teaching Scholars (DTS) program, NSF, Arlington, VA, Jan. 27-28, 2003.
- Reviewer, Comprehensive International Program of Research on AIDS (CIPRA). National Institute of Allergy and Infectious Diseases, Feb. 4, 2003.
- NSF Panel Member, Population Biology Panel, NSF, Arlington, VA, April 10-12, 2002. Review of NSF proposals in Population Biology.
- Co-Chair, NSF Math-Bio-CS Initiative Steering Committee Meeting, NSF, Arlington, VA, March 27th, 2002.
- Reviewer, Comprehensive International Program of Research on AIDS (CIPRA). National Institute of Allergy and Infectious Diseases, June 18, 2002.
- Sloan Panel Member, "Recruiting Students Who Are Academically Under-prepared "Sloan Foundation Conference, City College of New York, April 26, 2001.
- NHGRI Panel Member, National Human Genome Research Institute panel for developing innovative approaches to recruiting underrepresented minorities into genomics research. National Human Genome Research Institute, National Institutes of Health, Maryland, April 16-17, 2001.
- Chair, NSF-MIE Site Review Team, Model Institution for Excellence, Project UMET (San Juan, Puerto Rico) January 13-14, 2000.

1987-1998

- Member, OSTP Panel: "Meeting America's Needs for the Scientific and Technological Challenges of the Twenty-First Century" 150th Anniversary Meeting, AAAS, February 13, 1998, Philadelphia, PA.
- Member, NIH, ARRB: 7/18/97, (AIDS Review Panel).
- Member, Population Biology Review Panel, NSF (4/97).
- Member, NSF Educational Programs in Mathematics Review Panel, NSF (2/97).
- Member, Committee of Visitors for the Systematics and Population Biology Cluster, NSF, Arlington, VA (5/96).
- Invited Participant, Workshop on Research Opportunities at the Interface of Biology, Mathematics and the Physical Sciences NSF, Arlington, VA. Produced NSF Report.
- Member, Model Institutes for Excellence Blue Ribbon Panel, NSF, Arlington, VA

- Member, NIH AIDS Review Panel (1/95).
- Panel Member, Mathematical Biology, Biostatistics, and Epidemiology, Howard Hughes Graduate School Fellowships.
- Site Review Team Member, Model Institutions for Excellence Program, NSF (visited several universities in Texas).
- Member, NSF Population Biology Panel.
- Member, Model Institutes for Excellence, Blue Ribbon NSF Panel, Arlington, VA (4/95).
- Invited Participant, "Forum in the National Interest: World Leadership in Basic Science, Mathematics and Engineering," Executive Office of the President, Office of Science and Technology Policy, 1994.
- Member, NSF Panel, Pilot Program for Minority Undergraduates (7/93).
- Invited Participant, Northeastern United States Regional Meeting, SACNAS, University of Connecticut (11/93).
- Invited Participant, Workshop, Mathematische Modelle in der Biologie. Forschungsinstitut, Oberwolfach, Germany (11/93).
- Invited Participant, Workshop on Quantitative Methods for Studying AIDS, sponsored by SIMS (Societal Institute of the Mathematical Sciences), at the Heinrich-Fabri-Institut, Conference Center, Tübingen University, Blaubeuren (6/93).
- Panel Member, NSF Program: Oversight Committee, Research Careers for Minority Scholars (7/92).
- Panel Member, Research Careers for Minority Scholars.
- Invited Participant, Regional Meeting, SACNAS Northeastern Chapter. Harvard University (6/92).
- Invited Participant, Workshop, Statistical Methodology for the Study of the AIDS Epidemic. The Societal Institute of the Mathematical Sciences (SIMS), Mathematical Sciences Research Institute, Berkeley, CA (9/91).
- Invited Participant, Workshop, "Mathematics and Biology, the Interface: Challenges and Opportunities," NSF, Washington, D. C. Produced NSF Report.
- Consultant, National Institute of Health: AIDS Expedite Review Panel.
- Invited Participant, Workshop, Selective Mixing and the Spread of AIDS. The Center for the Social Sciences, Columbia University, New York City, NY (4/90).
- Consultant, National Institute of Health: AIDS Expedite Review Panel, 1989
- Panel Member, Research Careers for Minority Scholars, 1989
- Invited Participant, Workshop Mathematical Models for Infectious Diseases. Forschungsinstitut, Oberwolfach, Germany (2/89).
- Panel Member, "A National Effort to Model AIDS Epidemiology." Executive Office of the President, Office of Science and Technology Policy. Produced OSTP Report, 1988
- Consultant, National Institute of Health: AIDS Expedite Ad Hoc Review Panel (1/88).
- Participant, Workshop, Modeling the Interaction of HIV with the Immune System. The Center for Nonlinear Studies at Los Alamos National Laboratory (LANL) and the Santa Fe Institute, Santa Fe, NM (10/88).
- Participant, Conference, Mathematical and Statistical Developments of Evolutionary Theory. NATO Advanced Study Institute, Montreal, Canada (8/87).
- Participant, Workshop, Systems of Non-Linear Parabolic Equations, Oppenheimer Study Center, Los Alamos National Laboratory (LANL), Los Alamos, NM, 1987

CONSULTING

- Consultant, GlaxoSmithKline, Atlanta, GA, 11/20/2008-11/21/2008.
- Consultant, DOE's Office of Scientific and Technical Information (OSTI) in Oak Ridge, TN (2006).
- Consultant, Washington Advisory Group (2003).
- Consultant, Arizona State University (2003)

- Occasional consulting in the BSCB Department. Consulting on models for foot and mouth disease in 2001-2002.
- Consultant, National Institute of Health: AIDS Expedite Review Panel (1990).
- Consultant, National Institute of Health: AIDS Expedite Review Panel (1989).
- Consultant: Breakthrough (PBS Television Series), Blackside Production School, Blackside, Inc. Film and Television Production, Boston, MA (1994).

Publications (submitted) or completed manuscripts:

1. **Berezovskaya, F., B Song and C Castillo-Chavez** “Role of Prey Dispersal and Refuges on Predator Prey Dynamics,” Submitted
2. **Crisosto, M. N., C., Kribs-Zaleta, C Castillo-Chavez and S Wirkus,** “Community Resilience in Collaborative Learning,” Submitted
3. **Berezovskaya, F., S. Wirkus and C. Castillo-Chavez,** “Predator-Prey Interactions in Communities with prey dispersal and Allee effects,” Submitted
4. **Lee, S., E Jung and Castillo-Chavez,** “Optimal Control Intervention Strategies in Low and High Risk Problem Drinking Populations,” Submitted
5. **Mubayi A., G Chowell, C Castillo-Chavez, C Kribs-Zaleta, N A Siddiqui, N Kumar, and P Das,** “Transmission Dynamics and Underreporting of Kala-azar in the Indian State of Bihar,” Submitted
6. **Huo H-F, X Wang and C Castillo-Chavez,** “Dynamics of a Stage-Structured Leslie Gower Predator-Prey Model,” Submitted
7. **Roeger, Lih-ing, W, F Zhilan and C Castillo-Chavez,** “The Impact of HIV infection on Tuberculosis,” Submitted
8. **Mubayi, A., P Greenwood, X Wang, C Castillo-Chavez, D Gorman, P Gruenewald and R F Saltz,** “Types of Drinkers and Drinkers Settings: An application of Mathematical Models,” Submitted
9. **Lee, S., E Jung and C Castillo-Chavez,** “Optimal Control Drinking Strategies in Low and High Risk problem drinking populations,” Manuscript
10. **Castillo-Chavez, C. and C. W. Castillo-Garsow,** "The New American University: Mentorship in the Mathematical Sciences," In Abbe H. Herzig & Patricia Hale (Eds.), Models That Work: Building Diversity in Advanced Mathematics. Expected publication 2009.
11. **Chow, K., X Wang., R Curtiss III and C Castillo-Chavez,** “Evaluating the Efficacy of Antimicrobial Programs and Patient Isolation on Dual Resistance in Hospitals,” Manuscript

Publications (published, in press, accepted):

12. **Kareva I., Berezovskaya, F, and C Castillo-Chavez,** “Myeloid Cells in Tumor-Immune System Interactions,” Preliminary Acceptance, Journal of Biological Dynamics
13. **Nuno, M, M Martcheva and C Castillo-Chavez,** “Immune Level Structure Model for Influenza Strains,” Accepted in Journal of Biological Systems
14. **Sutton, K, H.T. Banks and C Castillo-Chavez,** “Public vaccination policy using an age-structure model of pneumococcal infection dynamics,” Accepted Journal of Biological Dynamics.

15. **Shim, E and C Castillo-Chavez**, “The epidemiological impact of rotavirus vaccination programs in the United States and Mexico,” In *Mathematical and Statistical Estimation Approaches in Epidemiology*. Edited by G Chowell, J.M. Hyman, L.M.A. Bettencourt, and C. Castillo-Chavez, Springer. 2009, Approx. 430 pages, Hardcover, ISBN: 978-90-481-2312-4.
16. **Cintron-Arias, A, F Sanchez, X Wang, C Castillo-Chavez, D Gorman and P Gruenwald**, “The role of nonlinear relapse on contagion among drinking communities,” ,” In *Mathematical and Statistical Estimation Approaches in Epidemiology*. Edited by G Chowell, J.M. Hyman, L.M.A. Bettencourt, and C. Castillo-Chavez, Springer. 2009, Approx. 430 pages, Hardcover, ISBN: 978-90-481-2312-4.
17. **Rios-Doria, D., G Chowell, C Munayco-Escate, A Whitthembury and C Castillo-Chavez**, “Spatial and Temporal Dynamics of Rubella in Peru, 1997-2006: Geographic patterns, age at infection and estimation of transmissibility,” In *Mathematical and Statistical Estimation Approaches in Epidemiology*. Edited by G Chowell, J.M. Hyman, L.M.A. Bettencourt, and C. Castillo-Chavez, Springer. 2009, Approx. 430 pages, Hardcover, ISBN: 978-90-481-2312-4.
18. **Chowell, G, J.M. Hyman, L.M.A. Bettencourt, and C. Castillo-Chavez**, “Preface,” In *Mathematical and Statistical Estimation Approaches in Epidemiology*. Edited by G Chowell, J.M. Hyman, L.M.A. Bettencourt, and C. Castillo-Chavez, Springer. 2009, Approx. 430 pages, Hardcover, ISBN: 978-90-481-2312-4.
19. **Castillo-Chavez, C., C Kribs-Zaleta, Y Kuang, and B Song**, “ From Guest Editors,” Mathematical Biosciences and Engineering Volume 6, Number 2, April 2009 pp. i–ii (<http://www.aims sciences.org/journals/displayArticles.jsp?paperID=4032>)
20. **Aparicio J and C Castillo-Chavez**, “Mathematical Modeling of Tuberculosis Epidemics,” Mathematical Biosciences and Engineering Volume 6, Number 2, April 2009 pp. 209-237 (<http://www.aims sciences.org/journals/displayArticles.jsp?paperID=4033>)
21. **Cintron-Arias, C., C Castillo-Chavez, L Bettencourt, and M Hyman**, “The Estimation of the Effective Reproductive Number from Disease Outbreak Data,” Mathematical Biosciences and Engineering Volume 6, Number 2, April 2009 pp. 261-282 (<http://www.aims sciences.org/journals/displayArticles.jsp?paperID=4037>)
22. **Mubayi, Anuj, Priscilla E. Greenwood, Carlos Castillo-Chavez, Paul Gruenewald, Dennis M. Gorman**, Impact of Relative Residence Times on the Distribution of Heavy Drinkers in Highly Distinct Environments, *Socio-Economic Planning Sciences* (in press)
23. **Cintron-Aria, A., C. Castillo-Chavez, L. M. Bettencourt, A. L. Lloyd and H.T. Banks**, “Estimation of the Effective Reproductive Number from Disease Outbreak Data,” Mathematical Biosciences and Engineering Volume 6, Number 2, April 2009, pp. 261–283 doi:10.3934/mbe.2009.6.261
24. **Castillo-Chavez C. and C. W. Castillo-Garsow**. "Increasing Minority Representation in the Mathematical Sciences: Good models but no will to scale up their impact," In: *Doctoral*

- Educations and the Faculty of the Future*, Edited by, Ronald G. Ehrenberg and Charlotte V Kuh, pp 135-145, Cornell University Press (2009)
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 26. **Chowell, C.A. Torre, C. Munyaco-Escate, L. Suárez -Ognio, R. López-Cruz, J.M. Hyman, C. Castillo-Chavez.** “*Spatial and temporal dynamics of dengue fever in Peru: 1994-2006*”, *Epidemiology and Infection*. 2008 Apr 8:1-11.
 27. **Sutton, K., Banks, T., and C Castillo-Chavez**, “*Estimation of Invasive pneumococcal disease dynamics parameters and the impact of conjugate vaccination in Australia.*” Volume 5, Number 1, pp 175-204, *Mathematical Biosciences and Engineering*, January 2008.
 28. **Castillo-Chavez, C., Z Feng, and D. Xu**, “Schistosomiasis model with mating structure and time delay,” (doi: 10.1016/j.mbs.2007.11.001) *Mathematical Biosciences* 211 (2008) 333–341
 29. **BETTENCOURT, L. M. A., D. I. KAISER, J. KAUR, C. CASTILLO-CHÁVEZ, D E. and WOJICK**, “Population modeling of the emergence and development of scientific fields” *Scientometrics, Vol. 75, No. 3 (2008) 495–518*; DOI: 10.1007/s11192-007-1888-4
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47. **Brauer, F., C. Castillo-Chavez, T. G. Hallam, J. Li, J. Wu and Y. Zhou.** “Zhien Ma’s Contributions to dynamical systems, ecotoxicology and epidemiology– A scientific Leader, educator and scholar;” In *Volume in Honor of Ma Zhien, Mathematical Biosciences and Engineering*, Volume 3, Number 1, pages i-ix, 2006
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51. **P. Diaz, G. Chowell, G. Ceja, T. C. D'Auria, R. C. Lloyd, C. Castillo-Chavez,** “Pediatric Electrocardiograph Abnormalities Following *Centruroides limpidus tecomanus* Scorpion Envenomation.” *Toxicon* 45(1), 27-31 (2005).
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PROFESSIONAL OVERVIEW

My activities focus on three areas: research, teaching and the instigation of synergistic activities through a series of local, regional, national and international activities originated and/or supported by the Mathematical, Computational and Modeling Sciences Center and its two institutes MTBI⁷/SUMS⁸.

The Mathematical, Computational and Modeling Sciences Center (<http://mcmssc.asu.edu/>) "... strives to create a dynamic community of quantitative scientists and mathematicians, driven to contribute to the solution of problems in the biological, environmental, and social sciences. Through flexible research and cross-disciplinary programs, the MCMSC will train a new generation of scientists whose research is driven by 'solution' rather than 'discipline.' Armed with this mindset, the MCMSC will promote, support and encourage teams and faculty that do not hold a reductionist view of the world".

MTBI's (Mathematical and Theoretical Biology Institute) summer programs provide sequential research experiences at the undergraduate and graduate levels, in the field of applied mathematics and its applications to the biological and social sciences. MTBI provides research mentorship training to a limited number of faculty members who want to work at the interface of applied mathematics and theoretical and computational biology that have no prior experience in these fields. SUMS' (Institute for Strengthening Understanding of Mathematics and Science) mission focuses on increasing the representation of US citizens and residents in fields that require strong quantitative training. SUMS' Mathematics Sciences Honors Program (MSHP) has trained over 2000 high school students from economically disadvantage backgrounds and who are residents of the State of Arizona over the past 24 years. Their training is via an intense mathematics summer experience on college mathematics but we have sometimes offered a course in mathematical biology.

As Executive Director of SUMS and MTBI, I work at increasing the impact of its pipeline programs (high school, college, graduate school and postdoctoral level) in order to enhance the level of participation and success of US students within the American Research Enterprise and Academia. Particular emphasis is put on the training of individuals coming from groups who are underrepresented in the mathematical sciences or in fields that demand strong background in a quantitative field. Detailed publication on the successes of these program include:

Castillo-Chavez C and C. W. Castillo-Garsow, "*Increasing Minority Representation in the Mathematical Sciences: Good models but no will to scale up their impact*," In: *Doctoral Educations and the Faculty of the Future*, Edited by, Ronald G. Ehrenberg and Charlotte V Kuh, pp 135-145, Cornell University Press (2009)

Castillo-Chavez, C., C. W. Castillo-Garsow, G. Chowell, D. Murillo, and M. Pshaenich, "*Promoting Research and Minority Participation via Undergraduate Research in the Mathematical Sciences. MTBI/SUMS-Arizona State University*," In: *Proceedings of the Conference on Promoting Undergraduate Research in Mathematics*, Edited by Joseph Gallian, pages 15-22, American Mathematical Society, AMS (<http://www.ams.org/employment/REUproceedings.html>), June, 2007

⁷ Mathematical and Theoretical Biology Institute

⁸ Institute for Strengthening Understanding of Mathematics and Science