TSAFRIR S MOR

NAME
Tsafrir S. Mor, Ph.D.

POSITION:
Associate Professor

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Tempe, AZ 85287-4501
USA

EDUCATION

INSTITUTION AND LOCATION	DEGREE	YEAR(S)	FIELD OF STUDY
Hebrew University of Jerusalem, Jerusalem, Israel	B.Sc.	1989	Biology
Hebrew University of Jerusalem, Jerusalem, Israel	M.Sc.	1995	Biochemistry
Hebrew University of Jerusalem, Jerusalem, Israel	Ph.D.	1997	Biochemistry
Hebrew University of Jerusalem, Jerusalem, Israel	Post-doc	1997	Biochemistry
Boyce Thompson Institute for Plant Research at Cornell University, Ithaca, NY 14853, USA	Post-doc	1997-2000	Plant Biotechnology

PROFESSIONAL EXPERIENCE

1982-1985	Military service, Israel Defense Force
1989-1996	Teaching Assistant, The Institute of Life Sciences, The Hebrew University of Jerusalem, Jerusalem 91904, Israel.
1992	Visiting scientist with Dr. Susan S. Golden (Texas A&M University, College Station, TX, USA)
1992-1993	Visiting scientist with Dr. Himadri B. Pakrasi (Washington University, St. Louis, MO, USA)
1995	Visiting scientist with Dr. Jean-David Rochaix (University of Geneva, Geneva, Switzerland)
1996-1997	Post-Doctoral Fellow, The Department of Biological Chemistry, The Institute of Life Sciences, The Hebrew University of Jerusalem, Jerusalem 91904, Israel
1997-2000	Post-Doctoral Associate, Boyce Thompson Institute for Plant Research at Cornell University, Tower Rd., Ithaca, NY 14853, USA
2000-2003	Research Assistant Professor, Dept. of Plant Biology, Arizona State University, Tempe, AZ 85287
2003	Research Assistant Professor, Biodesign Institute, Arizona State University, Tempe, AZ 85287
2003-2008	Assistant Professor, School of Life Sciences and Biodesign Institute, Arizona State University, Tempe, AZ 85287
2008-present	Associate Professor, School of Life Sciences and Biodesign Institute, Arizona State University, Tempe, AZ 85287

HONORS AND AWARDS

1987	Dean's Prize, Hebrew University of Jerusalem
1988	Dean's List, Hebrew University of Jerusalem
1990	Edith Polak Prize, Hebrew University of Jerusalem
1991	Rector's Prize, Hebrew University of Jerusalem
1997	Fullbright Post-doctoral fellowship (declined)
1997-1999	2-year Postdoctoral Award (No. FI-251-97) from the US-Israel Binational Agricultural Research and Development Fund
1999	1 year competitive grant awarded by the Boyce Thompson Institute
2004	Keystone Symposia Scholarship
2004	School of Life Sciences Travel Award
2005	Arizona Governor's Celebration of Innovation Award
2008	Nomination for Arizona State University, College of Liberal Arts and Sciences 2008 Dean's Quality Teaching Award in honor of Zebulon Pearce, Natural Sciences.
2009	AZTE Inventorship Recognition Award
2012	Nomination for Arizona State University, College of Liberal Arts and Sciences 2008 Dean's Quality Teaching Award in honor of Zebulon Pearce, Natural Sciences.
2012	AZTE Inventorship Recognition Award

TEACHING

COURSES CREATED

• MBB247: Molecular Biology: Fundamentals and Applications (Applied Biosciences: Biotechnology). This course was designed (together with Dr. Hugh Mason) to fill a gap between the first course of the MBB sequence (MBB245/246 or BIO187) and the more advanced courses of this major. The emphasis in this major is on molecular and cellular biology and gene technology and their applications in the growing areas of biotechnology and the molecular biosciences. MBB247 was designed to demonstrate how the accumulating data in molecular biology allow the scientists to apply it toward new and unresolved basic questions as well as toward "real-world" issues in such realms as medicine, agriculture, renewable resources and environmental protection. In designing MBB247 we present molecular biology as an evolving discipline – instead of presenting the students with facts packaged into textbooks, we present a series of tentative hypotheses and allow the students to follow the experimental path leading to their acceptance. A major emphasis in the course is therefore on how the molecular biologists formulate their questions, the tools they use to try to answer these questions and how conclusions (and new questions) can be drawn from the experimental results. Likewise, the weekly assignments are planned as exercises in scientific deductive thinking. Please refer to the syllabus and samples of representative presentations and homework assignments.

• MBB248: Molecular Biology: Fundamentals and Applications Laboratory (Applied Biosciences: Biotechnology Laboratory). This is the companion lab course to MBB247 (co-requisite) and was designed to complement the lectures by providing opportunity for first hand experience with the some of the concepts and techniques introduced in the lectures of MBB247. MBB248 is further aimed at also to introducing the students to the culture of a molecular biology lab: how experiments are conceived and planned, how results are obtained, recorded, interpreted and presented, lab lingo and etiquette, team work, fun, excitement and (occasional) frustration… Following this rationale, the manual we wrote for the course is not the typical student lab cookbook. Instead, the procedures, while clearly stated, leave much of the experimental planning to the students under the guidance and approval of the instructors. In spring 2007, MBB248 was folded into MBB247, which is now a 4-credit lecture/lab course.

COURSES TAUGHT

- BIO181 **General Biology I**
  4 cr
  The main introductory course of SoLS with mega enrollment (400-500 students in a section). BIO181 gives introduction to molecular biology, cellular biology, human anatomy and physiology.
  Taught: Fall 2010 (with Orchinik), Fall 2011 (with Jindrich), Fall 2013 (with Caron)

- BIO181 **General Biology I for Honors Students**
  4 cr
  The main introductory course for SoLS Honors students. BIO181 gives introduction to molecular biology, cellular biology, human anatomy and physiology.
  Taught: Fall 2010 (with Orchinik), Fall 2011 (with Jindrich), Fall 2013 (with Caron)

- BIO189 **Life Sciences Career Paths: Topic: The Dark Side of the Force**
  1 cr
  Freshmen seminar: overview of modern life sciences, including research trends, extracurricular opportunities, degree programs, and potential careers. My section is described as: "From curare-dipped arrowheads to the Tokyo Subway Sarin attacks and from catapulted corpses of bubonic plague victims to the anthrax letters, humans have been incorporating naturally occurring pathogenic microorganisms and toxic chemicals into their arsenal throughout history. […] Learn about, discuss and maybe get involved in research conducted at ASU to counter the dark side of the force!
  Taught: Fall 2010, Fall 2012

- CBS530 **Introduction to Structural and Molecular Biology**
  4 cr
  A graduate student-level introduction to structure and function of cells, proteins, membranes, and the genome; gene expression and biogenesis of structures; application of computer imaging.
  Taught: Fall 2005, Fall 2006, Fall 2007, Fall 2008,

- CBS598 **Introduction to Structural and Molecular Biology**
  4 cr
  A graduate student-level introduction to structure and function of cells, proteins, membranes, and the genome; gene expression and biogenesis of structures; application of computer imaging.
  Taught: Spring 2010,

- MBB247 **Principles of Molecular and Cellular Biology II (Lecture and Laboratory)**
  4 cr, was 3 cr through 2006)
  Honors contract
  Applies concepts of molecular and cellular biology of bacteria, animals, and plants to real-world problems.
  Taught: Spring 2004 (with Joshi and Mason), Spring 2005 (with Mason), Spring 2006 (with Mason), Spring 2007 (with Mason), Spring 2008 (with Mason), Spring 2009 (with Mason) , Spring 2010 (with Mason), Spring 2011 (with Mason), Spring 2012 (with Mason), Spring 2013 (with Mason)

- MBB248 **Applied Biosciences: Biotechnology Laboratory**
  1 cr
  Footnote 18 course
  Applies concepts of molecular and cellular biology of bacteria, animals, and plants to real-world problems.
  Taught: Spring 2005 (with Mason), Spring 2006 (with Mason)

- MCB500 **Strategies for production of recombinant protein-pharmaceuticals**
  1-3 cr
  A graduate level seminar, where students present their own research as well as recent research literature.
  Taught: Fall 2005, Spring 2006, Fall 2006, Spring 2007, Fall 2007, Spring 2008, Fall 2008, Spring 2009, Fall 2009, Spring 2010, Fall 2010, Spring 2011, Fall 2011, Spring 2012, Fall 2012, Spring 2013, Fall 2013

- MIC591 **MIC 591: Milestones in Microbiology**
  3 cr
  A graduate level seminar for review of major milestones in microbiology through student-led (but faculty directed) discussions of seminal papers.
  Taught: Fall 2010 (with Clark-Curtiss, Escalante, Garcia-Pichel, Krajmalnik-Brown, Shi),
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GUEST LECTURES AT ASU COURSES

- BIO294 **Minority Access to Research Careers**
  Undergraduate Mentoring in Environmental Biology / Minority Access to Research Careers
  Taught: Fall 2003
- HPS410/BIO416 **Professional Values/Science**
  2 Cr
  An upper division course, which considers issues related to values in science such as collaboration, finances, legal issues, media, mentoring, ownership of ideas, scientific integrity. I participated in panels discussing biotechnology and GMOs
  Taught: Spring semesters of 2001, 2002, 2003, 2005, 2010
- MCB501 **Seminar: Molecular and Cellular Biology Colloquium**
  1 Cr
  Presentation of current research by MCB students, MCB faculty and guests noted in their field
  Taught: Spring 2001, Fall 2006
- MIC591 **Milestones in Microbiology**
  2 Cr
  A small class emphasizing discussion, presentations by students, and written research papers. Led four 75-minute discussions
  Taught: Fall 2010
- PLB200/201 **Biology of Plants (for Majors)**
  4 Cr
  Analyzes the structure/function interaction for plant cells and tissues and properties that emerge in whole plants. Gave a lecture on regulation of gene expression in plants
  Taught: Spring 2009
- PLB350 **Applied Genetics**
  4 Cr
  An upper division course, Introduces molecular genetics with emphasis on application of genetics in solving biological questions and engineering organisms in biotechnology.
  Taught: Spring 2001, 2002

INVITED LECTURES AT COURSES/WORKSHOPS AT OTHER INSTITUTIONS

- MCB 294/ECH 294 **Current Progress in Biotechnology Seminar Course**
  ? Cr
  A seminar course required for the Designate Emphasis in Biotechnology
  Host: Dr. Anne Britt
  University of California at Davis, Davis CA
  Taught: Spring 2008
- **From Transgene to Organism: New Techniques in Molecular Cell Biology**
  6 Cr
  An international intensive laboratory workshop organized by Prof. Hermona Soreq, The Hebrew University of Jerusalem, Jerusalem, Israel)
  Taught: Winter 2004 (was invited in Winter 2006, but declined due timing conflict)

MENTORING

All students are from ASU unless otherwise noted. BIO, Biology; CBS, Computational Biosciences; MBB, Molecular Biosciences and Biotechnology; MCB, Molecular and Cell Biology; MIC, Microbiology; PLB, Plant Biology.

POST-DOCTORATE FELLOWS/RESEARCH FACULTY

1. Sarah Kessans (2012 → Postdoc at the Univeristy of Christchurch, Christchurch, New Zealand)
2. Mrinalini Muralidharan (2009 – 2010 → postdoc in Dr. Venigalla B. Rao's lab, Department of Biology, The Catholic University of America, Washington, DC)
3. Latha Kannan (2007 – Present)
4. Pierre-Emmanuel Garnaud (2007 – 2009 → postdoc at Universitie of Blaise Pascal, France)
5. Brian C. Geyer (2007 – 2009, → concomitantly obtained MD and MaPH degrees at the University of Arizona/Arizona State University Medical School, Phoenix, AZ → currently Resident (PGY-1), Emergency Medicine, Brigham and Women's Hospital, Massachusetts General Hospital, Boston, MA).
6. Nobuyuki Matoba (2001 – 2008, initially accepted with funding from the Japan Society for the Promotion of Science (JSPS) Research Fellowship for Young Scientist, he has been supported by highly competitive Japanese fellowships for 3 of the 6 years at ASU → promoted to Assistant Research Professor at Biodesign Institute, with his space assignment in the Mor lab to allow continued collaboration → Assistant Professor University of Louisville, KY)

PHD STUDENTS, COMMITTEE CHAIR

1. Lydia Meador (Biological Design, 2011– present, Co-Chair)
2. Arpan Deb (MCB, 2011 – present)
3. Katherine Larrimore (MCB, 2010 – present)
4. Gong Zhen (BCM, 2010 – present)
5. Sarah Kessans (MCB, 2006 – 2012 → Postdoc in my lab)
6. Mrinalini Muralidharan (MCB, 2002 – 2009 → Postdoc in my lab)
7. Brian C. Geyer (BIO, 2005 – 2007 → Postdoc in my lab and U of Arizona Med School → Residency in Brigham and Women – Harvard Medical School, Boston MA
8. Samuel P. Fletcher (PLB, 2001 – 2005 → postdoc position at Scripps Institute, San Diego → currently owns a consulting firm in Wyoming)

PHD STUDENTS, COMMITTEE MEMBER

1. Andy Diamos (MIC, 2013 – present)
2. Reed Bjorklund (MCB, 2011 – present)
3. Ho-Hsien (Alan) Lee (BCM, 2009 – present)
4. Sun Hee Park (PLB, 2008 – 2012; Graduated → working as a post-doc in a California biotech company)
5. Shuk Mei Wong (MCB, 2005 – 2009, failed her qualifying exams, switched to MS program)
6. Shuo Yuan (MCB, 2005 – 2008; failed her qualifying exams, switched to MS program)
7. Emel Topal (PLB, 2004 - 2010)
8. Lolita George (PLB, 2003 – 2008; graduated → worked as a post-doc in Biodesign Institute until Fall 2008 → currently working for the USDA).
9. Kate LePore (PLB, 2002 – 2008 → graduated → worked briefly for the USDA → Instructor of Biology at Monroe Community College, Rochester, NY)

COMPREHENSIVE EXAM COMMITTEE CHAIR/MEMBER

1. Reed Bjorklund (MCB, 2013)
2. Jordan Yaron (Biological Design, 2012)
3. Brianne Petritis (Biological Design, 2011)
4. Gong Zhen (BCM, 2011)
5. Sun Hee Park (PLB, 2011)
6. Liang (Alan) Xiao (Biological Design, 2010)
7. Fan (Joyce) Hong (Biological Design, 2010)
8. Ho-Hsien (Alan) Lee (BCM, 2010)

MSC STUDENTS, COMMITTEE CHAIR

1. Irene Cherni (MCB, 2005 – 2008 → worked in my laboratory as a Research Specialist Senior to 2010 → accepted a position in T-Gen, Phoenix AZ)
2. Namrata Shah (MCB, 2006 – 2008, moved to California with family, looking for job in industry/academia in the South Bay area)
3. Stephen Chelladurai (CBS, 2006 – 2007)

MSC STUDENTS, COMMITTEE MEMBER

1. Shuk Mei Wong (MCB, 2009)
2. Shuo Yuan (MCB, 2008 - 2009)
3. Lohith Madireddy (CBS, 2008 – 2008)
4. Priyank Jasani (CBS, 2008 – 2008)
5. Greg Golden (CBS, 2005 – 2006 → PhD studies at ASU, Tempe, AZ)

ROTATION STUDENTS

1. Stephen Tekel (Biological Design, 2013)
2. Chris Lanter (MCB, 2012, dropped out)
3. Lydia Meador (Biological Design, 2011)
4. Arpan Deb (MCB, Spring 2011)
5. Sun Hee Park (MCB, Spring 2008)
6. Sarah Kessans (MCB, Fall 2006)
7. Jelena Zarkovic (PLB, Fall 2002, Rotation)

PREP SCHOLARS

1. Rika Judd (2013 – present)
2. Edgard Jauregui (2012 – 2013)

GRADUATE INTERNS

3. Stephen Chelladurai (CBS, Summer 2006, Intern)
4. Larry Blankenship (Howard University Medical School, Summer 2005, Intern)

HONORS THESIS CHAIR (BARRETT HONORS COLLEGE)

1. Neil Robbins (MBB, 2009-2011, successfully defended)

2. Kristina Woodbury (MBB, 2008-2010, successfully defended)
3. John Frater (MBB, 2008-2010, successfully defended)

HONORS THESIS 2ND OR 3RD READER (BARRETT HONORS COLLEGE)

1. Denise Godinez (MBB, 2012 - successfully defended)
2. Thomas Keller (MIC 2011-2012, successfully defended)
3. Farzana Sarder (BCH, 2011-2012, successfully defended)
4. Dalia Larios (BIO, 2011-2012, , successfully defended)

UNDERGRADUATE RESEARCHERS

1. Rebekah Dickey (MBB, 2013 – present)
2. Dhruv Patel (Cornell U, summer of 2013)
3. Nicholas Todhunter (MBB, 2013 – present)
4. Patrick Cervantes (MBB, 2013 – present)
5. Taylor Martin (MIC, 2013 – present)
6. Player Robert Kendel (MBB, 2012 – present)
7. Heeral Patel (MBB, 2012 – present)
8. Shangji Zhang (MBB, 2012 – 2013)
9. Kwanho Yun (MBB, 2012 – present)
10. William (Bill) Johnson (MBB, 2012 – present)
11. Nicholas Segerson (MBB, 2011 – 2013 → Cornell University Grad School)
12. Dustin Srinivas (MBB, 2011 – 2013 → U Southern California Grad School)
13. Matthew Barcus (MBB, 2011 – 2012; Graduated → Cornell University Grad School)
14. Edgard Jauregui (MBB, 2011 – 2012 → became a PREP scholar at ASU)
15. Anangemede Elemo (MBB, 2011, graduated spring 2011)
16. Mark Linhart (MBB, 2010 – 2012; Graduated → NAU Grad School)
17. Matthew Hilton (MBB 2010- 2012; Graduated → ASU Grad School)
18. Andrew Olson (MBB, 2009-2010, graduated Fall 2010 → accepted work as science writer in a small company in AZ)
19. Neil Robbins (MBB, Honors, 2009 – 2011; Graduated → Stanford U Grad School.)
20. Aaron Benally (MBB, 2008-2009 → graduated from ASU)
21. Karli Preston (MBB, 2008-2010, graduated 2010 → Technician at Unipath, Denver, Colorado)
22. Kristina Woodbury (MBB Honors, 2008-2010; Graduated → Technician at Biodesign Institute, ASU)
23. Ian Puffenberger (MBB, 2008-2010; Graduated → Medical School, University of Toledo, Ohio)
24. John Frater (MBB and Biochemistry, Honors, 2008-2010; Graduated → MD/PhD Program in SUNY Stony Brook – Cold Spring Harbor, NY)
25. Eric Davies (MBB, 2008-2009; Graduated)
26. Alicja Skalecka-Ball (MBB, 2007-2008; Graduated → accepted a job in the Mayo Clinic, Scottsdale, AZ)
27. Sheldon Phillips (MBB, 2006-2007l Graduated → joined the Scottsdale Police)

28. Aaron Vassal (MBB, 2006-2008; Graduated → NIH intern at Bethesda, MD → MD program at Columbia University, NYC, NY)
29. Josie Delisle (MBB, 2005-2008, a SOLUR researcher; received the College of Liberal Arts and Sciences' Student Achievement Award; Graduated → an NIH intern at Bethesda, MD → Grad School at U of Marryland)
30. Ryan Woods (MBB, 2005-2008; Graduated → MD degree in U of Arizona's Medical School, Tucson, AZ → Resident in Lexington KY)
31. Anjeli Patel (MBB, Honors, 2005-2006)
32. Tagan Griffin (MBB, 2005-2007; Graduated 2007 → Grad School at U of Pennsylvania, Philadelphia, PA)
33. Michael Lopker (MBB, Honors, 2004, → MD/PhD program, U of Alabama at Birmingham, AL)
34. Brian C. Geyer (MBB, 2004; Graduated 2005; 2007 - PhD, ASU; Medical School, U of Arizona/Arizona State U, Phoenix, AZ)
35. Jeff Doran (MBB, 2004-2005 → Technician at Biodesign Institute, ASU)
36. Irene Cherni (MBB, 2003, graduated 2003 → Graduate School, Arizona State U → Technician at T-Gen)
37. Jerome Clark (BIO, MARC, 2003)
38. Jacob Jones (MBB, Honors, 2003-2004, 2006-2007 → Juris Doctor studies at ASU's O'Connor College of Law)
39. Mitchell Lepetich (MBB, 2003 → A.T. Still University Arizona School of Dentistry & Oral Health, Mesa, AZ → DMD, practicing dentistry in Gilbert, AZ)
40. Daniel E Kreutz (MBB, 2002 → Creighton University School of Medicine, Omaha, NE → MD Resident, Internal Medicine Residency Program, Temple Clinic, Temple, TX
41. Mrinalini Muralidharan (MBB, 2001, graduated 2001 → Graduate School, Arizona State U, Tempe, AZ)

INDEPENDENT STUDY ADVISOR

1. Carlos Recinos (MBB, 2012 – present)
2. Jesus Lugo (MBB, 2010-2011)
3. Pooya Haghdoust (MIC, 2010)
4. Timothy Hsiao (MIC, 2009)

HIGH SCHOOL INTERNS:

1. Howard Chang (Corona del Sol High School, 2006-2007, co-winner of the Grand Prize in the Intel science fair, has moved on to compete in the National competition in 2007)
2. Jon Hu (Corona del Sol High School, 2006-2007, co-winner of the Grand Prize in the Intel science fair, has moved on to compete in the National competition in 2007)

FACULTY MENTORING PROGRAM:

1. Mentor for MBB Honors students (2010 – present)
2. Mentor for MBB students (2007– present)

SERVICE: University

BIOMEDICINE AND BIOTECHNOLOGY FACULTY

- Personnel Committee (the Faculty as a Whole), member (2008 - present)
- Personnel Committee, member (2004 - 2005)

COMPUTATIONAL BIOSCIENCES PROGRAM

- Executive Committee, member (2005 – present [suspended])

MOLECULAR AND CELLULAR BIOLOGY GRADUATE PROGRAM

- MCB Student Progress Committee, member (2008 - present)

MOLECULAR BIOSCIENCE AND BIOTECHNOLOGY UNDERGRADUATE DEGREE PROGRAM

- MBB Faculty Advisor, member (2008 - present)

SCHOOL OF LIFE SCIENCES

- Biomarker Search Committee, Chair (2012-Present)
- Curriculum Reform Committee (2010 – present)
- Facilities Committee, Member (2007-Present)
- Lab coordinator Search Committee (2009-2010)
- Greenhouse Committee, Chair (2005-2012)
- Adjunct/Affiliated Committee, Member (2004-Present)
- Honors and Awards Committee, Member (2004-2005)

ARIZONA STATE UNIVERSITY

- Animal Users Advisory Committee (AUAC), Chair (2013-Present)
- Animal Users Advisory Committee (AUAC), member (2010-Present)

SERVICE: Professional

EDITOR– JOURNALS

- Biotechnology Letters (Elsevier Journal), Associate Editor (2005-Present). Reviewing and Editing 10-15 papers a year.

AD HOC REVIEWER – JOURNALS/BOOK PUBLISHERS

- Applied Microbiology and Biotechnology
- Biomed Central - Biotechnology
- Biotechnology and Bioengineering
- Chemico-Biological Interactions
- Current HIV Research
- Elsevier
- Expert Reviews
- FEBS Journal (Formerly European Journal of Biochemistry)
- FEBS Letters
- Frontiers in Molecular Neuroscience
- Journal of Molecular Biology
- Pesticide Biochemistry and Physiology
- Planta

- Plant Biotechnology Journal
- Plant Cell, Tissue & Organ Culture
- Plant Molecular Biology
- Plant Physiology
- Plant Science
- *PLOS* One
- Proceedings of the National Academy of Science USA
- Virology
- WH Freemann

AD HOC REVIEWER – STATE FUNDING AGENCIES:

- Arizona State University–University of Arizona: Collaborative on Biomedical Research Grant Program
- University of Louisville, KY

AD HOC REVIEWER – NATIONAL FUNDING AGENCIES:

- National Institutes of Health (CounterACT Study Section), summer 2010, winter 2011, summer 2011
- US Army Research Office (ARO)
- U.S. Civilian Research & Development Foundation (CRDF)

AD HOC REVIEWER – INTERNATIONAL FUNDING AGENCIES:

- The German-Israeli Foundation (GIF) Young Scientists Program
- Israel Ministry of Commerce and Industry
- Israel Ministry of Science
- Israel Science Foundation (ISF)
- Medical Research Council of South Africa (MRC)
- Natural Sciences and Engineering Research Council of Canada (NSERC).
- US-Israel Binational Agriculture Research and Development (BARD)

SERVICE: Community (Professionally Related)

- Science Fair Judge at Broadmor Elementary School (2003-Present)
- Volunteer teacher at Broadmor School, teaching about my research at ASU (2004-present)
- Volunteer teacher at Tempe Preparatory Academy, teaching about my research at ASU (2009)
- Volunteer Judge for the Odyssey of the Mind competition (2009-2011).

PROFESSIONAL SOCIETIES

- American Association for the Advancement of Science
- American Chemical Society
- American Society of Plant Biologists
- International Society for In Vitro Biology

RESEARCH SUPPORT

Dollar figures refer to total amount of support (direct and indirect)

My faculty position at ASU is jointly in the School of Life Sciences and in the Biodesign Institute's Center of Infectious Diseases and Vaccinology. The Biodesign Institute has specific expectations that its members be participants in outcome-oriented and multi-disciplinary research. The Institute Director, Dr. George Poste, strongly encourages "3M" projects (multi-disciplinary, multi-institutional, and multi-million dollar grants). To ensure that translational research is accomplished, the Institute also expects us to participate in public-private research partnerships. In my first years at ASU, I was successful in winning grant support on "sole-PI" projects (from NIH and DARPA), but as I've developed core skill sets in my laboratory group, and have established a network of collaborators, more of my current grant support is "3-M type". However, I am continuing to also pursue "sole-PI" grant support in addition (NIH RO1/UO1), especially in areas that will be complementary to ASU colleagues involved in plant-made pharmaceutical research.

ACTIVE

- HR0011-12-C-0103 (subcontracted to ASU through Kentucky Bioprocessing LLC) 9/1/2012 – 8/31/2013
  DARPA $419,325.00
  Plant-produced human butyrylcholinesterase

- 1 P1 DA031340-01 (Brimijoin, PI, Mor Co-PI) 9/1/2010 – 8/31/2015
  HHS-NIH $188,691 (Funding for the Mor Lab)
  "Cocaine Hydrolase Gene Therapy for Cocaine Abuse"
  This projects aims at providing therapies based on mutant derivatives of the human enzyme butyrylcholinesterase to treat cocaine abuse.

- 1 U54 GM094599 (Fromme, Center Director; Mor, Co-PI) 9/1/2010 – 8/31/2015
  HHS-NIH $7,301,150 (Total)
  "MPID: Center for Membrane Proteins in Infectious Diseases"
  This "3-M style" grant is part of NIH's major effort in structural biology (PSI). Biologists, Chemists and Modelling experts at ASU joined forces to advance our structure/function understanding of integral membrane proteins important for host-pathogen interactions in prominent examples of viral and bacterial pathogens of humans and their human host.

COMPLETED

- U54 NS058183-01 (Lenz, Center Director; Mor, Project 5's PI) 9/1/06 – 8/31/11
  HHS-NIH $2,549,676 (Funding to Mor for Project 5; the total grant is >$15million)
  "Rapid & Large-Scale Plant-Based Production Of Catalytic Nerve-Agent Bioscavengers"
  This "3-M style" grant on "Rapid & Large-Scale Plant-Based Production Of Catalytic Nerve-Agent Bioscavengers" has six projects and two cores. The US Army Medical Research Institute of Chemical Defense (US AMRICD) serves as the administrative center. Other projects are conducted at the Weizmann Institute, Ohio State University, and the Human Biomolecular Research Institute. Project 5, at ASU, has the major goal of expressing genes encoding human enzymes (BChE and PON1) in plants, purifying the products, and testing their potential as catalytic bioscavengers of nerve agents (in collaboration with other projects). While this research is outcome-oriented, the support allows the Mor laboratory team to make new discoveries in plant molecular biology and protein chemistry, especially in the area of cholinesterases.

- 1 S10 RR023652-01 (PI-Arntzen, Mor Co-PI) 03/01/07 – 2/29/08
  HHS-NIH $366,080.00
  BiaCore Instrument Purchase
  Major Goal: This grant has allowed the Biodesign Institute to purchase a state-of-the art BiaCore instrument.

- U19 AI062150 (Lead PI, Arntzen; Project 2 Co-PIs, Mason and Mor) 09/01/04 – 08/31/09

NIH $1,248,746 (the total grant is >$7 million) (Project 2)

"Project 2. Plant-made microbicides and mucosal vaccines for STIs"

This program project (on "Plant-made microbicides and mucosal vaccines for STIs" is administratively housed at ASU, and has three projects (one at the U. of Maryland, and one with MAPP Biotherapeutics, Inc.). Project 2, at ASU, supports efforts to design and produce mucosal vaccines in plant expression systems against sexually transmitted viral diseases (human papillomavirus, hepatitis B surface antigen, herpes simplex virus, human immunodeficiency virus), and to test these vaccines in pre-clinical animal trials. Efforts in the Mor laboratory are focused on subunit vaccines to block HIV infection. This is another "3 M" project.

🕮 R21 AI52761-01A2 (Mor, PI) 10/1/04 – 9/30/06

NIH $450,000

"AIDS Prevention: Mucosally-Targeted Plant Based Vaccines"

The major goals were to produce mucosal-targeted vaccine candidates against HIV. We continue this research area under U-19 funding (see above; "Plant-made Microbicides and Mucosal Vaccines for Sexualy Transmitted Infections), but are also planning for new NIH RO1 grant submissions to expand on our success in immunization using components of gp41 of HIV.

🕮 Service Agreement (Mor, PI) 10/11/06 – 1/10/07

USAMRICD $50,000

"Evaluation of plant-derived cholinesterases as prophylactic agents against chemical warfare agents"

The major goal was to produce 500 mg of BChE in plants, and the successful outcome was, in part supportive of our winning an NIH "3-M" grant on Catalytic Nerve-Agent Bioscavengers (see current support, above)

🕮 LF9 9350 (Mor, Principal Investigator) 2002-2004

Biodesign Institute, Arizona State University $56,000

Conjugation of Antigenic Peptides to Carrier Proteins: A Model for Testing Oral Immunogenicity of Edible Vaccines. Success in this seed grant provided the preliminary data which lead to success in capturing the R21 grant above.

🕮 N66001-01-C-8015 (PI) 5/1/03 – 5/2/05

DARPA $1,555,035

This first grant to the Mor lab at ASU lead to a highly productive network of collaborators at US AMRICD and the Hebrew University, and publications and preliminary data that led to success in the recently funded "3-M style" grant on "Rapid & Large-Scale Plant-Based Production Of Catalytic Nerve-Agent Bioscavengers".

PENDING

🕮 U01 (PI) funding was requested for 3 years

BARD $360,000

Modulating the Protein Levels of Heterologous Genes in Plants by Engineering their Translation Efficiency

GRANT SUPPORT FOR TEACHING EFFORTS

COMPLETED

🕮 2005 College Grant (Mor, Principal Investigator, Vermaas and Stout Co-PIs) 2005

College of Liberal Arts and Sciences, Arizona State University $11,288

Purchase of Alphaimager Gel Imaging System for Undergraduate Laboratories in the School of Life Sciences

CONFERENCE ORGANIZATION

1. Session organizer and chair: Session on plant derived pharmaceuticals, 16th Western Photosynthesis Conference. Asilomar Conference Center, Pacific Grove, California, 4-7 January 2007.

INVITED TALKS AT INTERNATIONAL & NATIONAL RESEARCH INSTITUTIONS

1. Defense Advanced Research Project Agency (DARPA) rBuChE Kick-off Meeting. Arlington, VA, November 9 2012 "Plant-produced human butyrylcholinesterase"
2. US Army Medical Research Inst for Chemical Defense, Aberdeen Proving Grounds, MD, May 3 2010 "Rapid & Large-Scale Plant-based Production of human cholinesterases as effective Nerve-Agent Bioscavengers"
3. US Army Medical Research Inst for Chemical Defense, Aberdeen Proving Grounds, MD, June 16 2009 "Rapid & Large-Scale Plant-based Production of human cholinesterases as effective Nerve-Agent Bioscavengers"
4. US Army Medical Research Institute for Chemical Defense, Aberdeen Proving Grounds, MD, July 2 2008 "Rapid & Large-Scale Plant-based Production of human cholinesterases as effective Nerve-Agent Bioscavengers"
5. The Mayo Clinic, Rochester, **MN**, December 7 2007 "Rapid & Large-Scale Plant-based Production of human cholinesterases as effective Nerve-Agent Bioscavengers"
6. US Army Medical Research Institute for Chemical Defense, Aberdeen Proving Grounds, MD, September 11 2007 "Rapid & Large-Scale Plant-based Production of human cholinesterases as effective Nerve-Agent Bioscavengers"
7. The Hebrew University of Jerusalem, Jerusalem, **Israel**, December 24 2006 "Fighting the HIV/AIDS Pandemic: developing vaccines aimed at blocking HIV-1 transmission"
8. California Department of Health Services, Richmond, **CA**, October 2005 "Towards an oral plant-derived HIV-1 subunit vaccine
9. Institute Cochin, Paris, **France**, February 8 2004 "Molecular Pharming: producing protein pharmaceuticals in transgenic plants"
10. Hebrew University of Jerusalem, Jerusalem, **Israel**, February 4 2004 "Molecular Pharming: producing protein pharmaceuticals in transgenic plants"

TALKS AT INTERNATIONAL & NATIONAL CONFERENCES

1. PBVA 5: Plant-Based Vaccines, Antibodies & Biologics, Verona, **Italy**, June 4-7 2013 "'Plant-produced butyrylcholinesterase variants as versatile bioscavengers".
2. Virus-Like Particle & Nano-Particle Vaccines - VLPNPV, Cannes, **France**, November 28-30, 2012 "Plant expression of chimeric Gag/gp41 virus-like particles as a mucosally-targeted subunit vaccine against HIV-1"
3. The XIth International Meeting on Cholinesterases, Kazan, **Russia**, June 4-9, 2012 "Plant-produced butyrylcholinesterase variants as versatile bioscavengers".
4. Biotechnología Havana 2011. Havana, Cuba. November 28-December 3, 2011 "Plant expression of chimeric Gag/gp41 Virus-like particles as a mucosally-targeted subunit vaccine against HIV-1".
5. 5th Annual NIH CounterACT Network Research Symposium. Washington, **DC**, June 21-23, 2011. **"**Rapid and large-scale plant-based production of catalytic nerve agent bioscavengers". "Center for Catalytic Bioscavenger Medical Defense Research [U54 Center Report]".

6. 4th Annual NIH CounterACT Network Research Symposium, San Francisco, CA, June 22-24, 2010
   "Center for Catalytic Bioscavenger Medical Defense Research [U54 Center Report]".
7. The Xth International Meeting on Cholinesterases, Šibenik, **Croatia**, September 20-25 2009
   "Plant produced human proteins as bioscavengers for anticholinergic agents".
8. The Bioprocessing Summit: Specialized Protein Expression Systems, Cambridge, **MA**. August 24-25 2009
   "Plant-Produced Human Cholinesterases and Plant Cholinesterase(s)".
9. 3rd Annual CounterACT Network Research Symposium Washington, **DC**, April 14 - 16, 2009.
   "Rapid and large-scale plant-based production of catalytic nerve agent bioscavengers".
10. Modern Mucosal Vaccines, Adjuvants & Microbicides, Oporto, **Portugal**, October 22-24 2008
    "Biochemical and immunological characterization of the plant-derived candidate HIV-1 mucosal vaccine CTB-$MPR_{649-684}$".
11. Bioscience Review 2008, Hunt Valley, **MD**, June 1-6 2008
    "Plant Production of Human Cholinesterases for Protection against Nerve Agents"
12. 2nd Annual NIH CounterACT Network Research Symposium, Washington, **DC**, April 15-17, 2008.
    "Rapid and large-scale plant-based production of catalytic nerve agent bioscavengers".
13. Cholinergic Signaling: From Genes To Environment, Jerusalem, **Israel**, August 20-22 2007
    "The Shakshuka Project: plant-produced human cholinesterases and plant cholinesterase(s)".
14. PBVA 2: Plant Expression Systems for Recombinant Pharmacologics, Verona, **Italy**, June 18-20 2007
    "Plant-derived human cholinesterases for protection against Nerve Agents".
15. The IXth International Meeting on Cholinesterases, Suzhou, **China**, 6-10 May 2007
    "Plant-derived human cholinesterases for protection against Nerve Agents".
16. 16th Western Photosynthesis Conference. Asilomar Conf Ctr, Pacific Grove, **CA**, January 4-7 2007
    "Plant production of human cholinesterases for protection against nerve agents".
17. International AIDS Vaccine 2006 Conf, Amsterdam, **The Netherlands**, August 29 - September 1 2006
    "Humoral immunity directed at gp41-MPR for the Prevention of HIV-1 Mucosal Transmission"
18. PBVA 1: Plant-Based Vaccines & Antibodies, Prague, **Czech Republic**, June 8-10 2005
    "Towards an oral plant-derived HIV-1 subunit vaccine"
19. DARPA PI Conf (Pathogen Countermeasures), Fort Lauderdale, **FL**, March 9-11 2005
    "Human acetylcholinesterase isoforms from transgenic plants"
20. The VIIIth International Meeting on Cholinesterases, Perugia, **Italy**, September 26-30 2004
    "Translational control of recombinant human acetylcholinesterase accumulation in plants"
21. DARPA PI Conf (Unconventional Pathogen Countermeasures), Napa, **CA**, May 11-13 2004
    "Human acetylcholinesterase isoforms from transgenic plants"
22. DARPA Topical Meeting (Immunomodulators), Lansdown, **VA**, December 3-4 2003
    "Human acetylcholinesterase isoforms from transgenic plants"
23. DARPA PI Conf (Unconventional Pathogen Countermeasures), Galveston, **TX**, April 6-10 2003
    "Human acetylcholinesterase isoforms from transgenic plants"
24. DARPA Topical Meeting (Immunomodulators), Bethesda, **MD**, October 9 2002
    "Human acetylcholinesterase isoforms from transgenic plants"
25. DARPA PI Conf (Unconventional Pathogen Countermeasures), Lexington, **KY,** April 6-10 2002
26. DARPA Topical Meeting (Immunomodulators), Washington, **DC**, October 4 2001
    "Human acetylcholinesterase isoforms from transgenic plants"
27. DARPA PI Conf (Unconventional Pathogen Countermeasures), San Diego, **CA**, February 4-7 2001
    "Human acetylcholinesterase isoforms from transgenic plants"

28. International Society for Plant Molecular Biology 2000 Meeting, Quebec, **Canada**, June 18-23 2000
"A system for the high-level expression of recombinant proteins in plants"

29. The IX International Congress on Plant Tissue and Cell Culture, Jerusalem, **Israel** June 14-19 1998
"Expression of rotavirus proteins in transgenic plants"

PUBLICATIONS

A note on the significance of the author list order. Last author position is usually, but not always, reserved to the author of correspondence who is responsible for the research design, the manuscript writing and the manuscript's final form. The "First Author" position in the case of primary research publications is reserved to the person most intimately connected with carrying out the experiments and drafting the manuscript. In review articles, the first author is usually the person who most substantially contributed to the writing of the manuscript. Middle authors usually contributed to the research by carrying out some of the experiments or substantially assisting in the experiments, intellectual input, experimental design, and writing parts of the manuscripts etc. On occasions, two equally contributing authors deserve to be recognized as "Co-First Authors".

An asterisk (*) denotes members of the Mor lab. A section sign (§) denotes the author of correspondence. Co-First Authors are recognized by a superscripted 1 ([1]). Conference abstracts are all posters unless stated otherwise and the presenting author's name is underlined.

JOURNAL ARTICLES:

1. Schneider JD, Marillonnet S, Castilho A, Gruber C, Warner S, Mach L, Kimyuk V, **Mor TS**, and §Steinkellner H. 2013 Oligomerization status influences subcellular deposition and glycosylation of recombinant butyrylcholinesterase in *Nicotiana benthamiana*. Plant Biotech J. in press.

2. Schneider JD, Castilho A, Neumann L, Altmann F, Loos A, *Kannan L, **Mor TS**, and §Steinkellner H. 2013 Expression of human butyrylcholinesterase with an engineered glycosylation profile resembling the plasma-derived orthologue. Biotech J. in press.

3. *Geyer BC, *Larrimore KE, *Kilbourne J, *Kannan L, §**Mor TS** (2013) Reversal of Succinylcholine Induced Apnea with an Organophosphate Scavenging Recombinant Butyrylcholinesterase. PLOS One. 8:e59159.

4. *Muralidharan M, *Woodbury K, *Larrimore KE, *Segerson NA, *Kannan L, and §**Mor TS** (2013) The *Arabidopsis thaliana* ortholog of a purported maize cholinesterase gene encodes a GDSL-lipase. Plant Mol Biol. Plant Mol. Biol. 81:565-576

5. *Kessans SA, *Linhart, MD, §*Matoba N, and §**Mor TS** (2013) Biological and biochemical characterization of HIV-1 Gag/dgp41 virus-like particles expressed in *Nicotiana benthamiana*. Plant Biotechnol J. 10.1111/pbi.12058. [Epub ahead of print].

6. *Larrimore KE, *Barcus MJ, *Kannan L, Gao Y, Zhan C-G, Brimijoin S, §**Mor TS** (2013) Plants as a source of butyrylcholinesterase variants designed for enhanced cocaine hydrolase activity. Chem-Biol Interact. 203**:**217-220

7. *Geyer BC, Ben-Ari S, §**Mor TS** and §Soreq H (2012) Nicotinic stimulation induces Tristetraprolin over-production and attenuates inflammation in muscle. Biochim Biophys Acta. 823: 368-78

8. *Matoba N, *Shah NR, and §**Mor TS** (2011) Humoral Immunogenicity of an HIV-1 Envelope Residue 649-684 membrane-proximal Region Peptide Fused to the Plague Antigen F1-V. Vaccine. 29:5584-5590.

9. *[1]Geyer BC, *[1]Kannan L, *Garnaud PE, Broomfield CA, Cadieux CL, *Cherni I, Hodgins SM, Kasten SA, Kelley K, *Kilbourne J, Oliver ZP, Otto TC, *Puffenberger I, Reeves TE, *Robbins N, 2nd, *Woods RR, Soreq H, Lenz DE, Cerasoli DM, §**Mor TS** (2010) Plant-derived human butyrylcholinesterase, but not an organophosphorous-compound hydrolyzing variant thereof, protects rodents against nerve agents. *Proc Natl Acad Sci U S A* 107: 20251-20256

10. *[1]Geyer, BC, *Kannan, L, *Cherni, I, *Woods, RR, *Soreq, H, and §**Mor TS** (2010) Transgenic plants as a source for the bioscavenging enzyme, human butyrylcholinesterase. *Plant Biotechnol J* 8: 873-886

11. *Matoba N, Kajiura H, *Cherni I, *Doran JD, Alfsen A, Bomsel M, Fujiyama K and §**Mor TS** (2009) Biochemical and immunological characterization of the plant-derived candidate HIV-1 mucosal vaccine CTB-MPR$_{649-684}$. *Plant Biotechnol J* 7:129-145

12. *[1]Woods RR, *[1]Geyer BC, §**Mor TS** (2008) Production of recombinant human acetylcholinesterase in hairy root cultures. *BMC Biotechnol* 8:95

13. *[1]Geyer BC, *[1]Woods RR, §**Mor TS** (2008) Increased organophosphate scavenging in a butyrylcholinesterase mutant. *Chem Biol Interact* 175:376-379

14. *Matoba N, *Griffin TA, *Mittman M, *Doran JD, Alfsen A, Montefiori DC, Hanson CV, Bomsel M, §**Mor TS** (2008) Transcytosis-blocking abs elicited by an oligomeric immunogen based on the membrane proximal region of HIV-1 gp41 target non-neutralizing epitopes. *Curr HIV Res* 6**:**218-229

15. Mor I, Sklan EH, Podoly E, Pick M, Kirschner M, Yogev L, Bar-Sheshet Itach S, Schreiber L, *Geyer B, **Mor T**, Grisaru D, Soreq H (2008) Acetylcholinesterase-R increases germ cell apoptosis but enhances sperm motility. *J Cell Mol Med* 12**:**479-95

16. Berson A, Knobloch M, Hanan M, Diamant S, Sharoni M, Schuppli D, *Geyer BC, Ravid R, **Mor TS**, Nitsch RM and §Soreq H (2008) Changes in readthrough acetylcholinesterase expression modulate amyloid-beta pathology. *Brain* 131:109-119

17. *[1]Geyer BC and *[1]Fletcher SP, *Griffin TA, *Lopker MJ, Soreq H and §**Mor, TS** (2007) Translational control of recombinant human acetylcholinesterase accumulation in plants. *BMC Biotechnol* 7:24

18. [1]Evron T and *[1]Geyer BC, *Cherni I, *Muralidharan M, *Kilbourne J, *Fletcher SP, Soreq H and §**Mor TS** (2007) Plant-derived human acetylcholinesterase-R provides protection from lethal organophosphate poisoning and its chronic aftermath. *FASEB J* 21:2961-9

19. Evron T, Greenberg D, **Mor TS** and §Soreq H (2007) Adaptive changes in acetylcholinesterase gene expression as mediators of recovery from chemical and biological insults. *Toxicology* 233, 97-107

20. *Matoba N, *Geyer BC, *Kilbourne J, Alfsen A, Bomsel M and §**Mor TS** (2006) Humoral immune responses by prime-boost heterologous route immunizations with CTB-MPR649-684, a mucosal subunit HIV/AIDS vaccine candidate. *Vaccine* 24:5047-5055

21. Saldaña S, Guadarrama FE, de Jesús Olivera Flores T, Arias N, López S, Arias C, Ruiz R, Mason H, **Mor T**, Richter L, Arntzen CJ and §Gómez Lim MA. (2006) Production of rotavirus-like-particles in tomato (Lycopersicon esculentum L.) fruit by expression of capsid proteins VP2 and VP6 and immunological studies. *Viral Immunol* 19:42-53

22. *Geyer BC, *Muralidharan M, *Cherni I, *Doran J, *Fletcher SP, Evron, T, Soreq H and §**Mor TS** (2005) Purification of Transgenic Plant-Derived Recombinant Human Acetylcholinesterase-R. *Chem Biol Interact* 157-158:406-407

23. *Muralidharan M, Soreq H and §**Mor, TS** (2005) Characterizing Pea Acetylcholinesterase. *Chem Biol Interact* 157-158:331-334

24. *Matoba N, Magérus A, *Geyer BC, Zhang Y, *Muralidharan M, Alfsen A, Arntzen CJ, Bomsel M and §**Mor TS** (2004) Mucosally-targeted subunit vaccine candidate eliciting HIV-1 transcytosis-blocking antibodies. *Proc Natl Acad Sci USA* 101:13584–13589

25. *Fletcher SP, *Geyer BC, Smith A, Evron T, Joshi L, Soreq H and §**Mor TS** (2004) Tissue distribution of cholinesterases and anticholinesterases in native and transgenic tomato plants. *Plant Mol Biol* 55:33-44

26. **Mor TS**, Moon Y-S, Palmer, KE and §Mason, HS (2003) Geminivirus vectors for high level expression of foreign proteins in plant cells. *Biotechnol Bioeng* 81: 430-437

27. Mason HS, Warzecha H, **Mor T** and §Arntzen CJ (2002) Edible plant vaccines: applications for prophylactic and therapeutic molecular medicine, *Trends Mol Med* 8, 324-9

28. §**Mor TS**, Sternfeld M, Arntzen CJ, Soreq H and Mason, HS (2001) Expression of recombinant human acetylcholinesterase in transgenic tomato plants. *Biotechnol Bioeng* 75:259-266

29. §**Mor TS**, Gómez-Lim MA and Palmer, KE (1998) Edible plant vaccines: A concept coming of age. *Trends Microbiol* 6:449-453

30. **Mor TS**, Hundal T, §Ohad I and §Andersson B (1997) The fate of cytochrome b559 during anaerobic photoinhibition and its recovery processes *Photosynth Res* 53:205-213

31. **Mor TS**, Ohad I, Hirschberg J and §Pakrasi HB (1995) An unusual organization of the genes encoding cytocrhome b559 in *Chlamydomonas reinhardtii*: psbE and psbF genes are separately transcribed from different regions of the plastid chromosome. *Mol Gen Genet* 246:600-604

32. Anbudurai PA, **Mor TS**, Ohad I, Shestakov SV and §Pakrasi HB (1994) The *ctpA* gene encodes the c-terminal processing protease for the D1 of the photosystem II reaction center complex *Proc Natl Acad Sci USA* 91:8082-8086

33. **Mor TS**, Post AF and §Ohad I (1993) The Manganese stabilizing protein (MSP) of Prochlorothrix hollandica is a hydrophobic membrane bound protein Biochim Biophys Acta 1141:206-212

BOOK CHAPTERS

1. §Mason HS, Thuenemann E, Kiyono H, *Kessans SA and **Mor TS**. (2014) Mucosal vaccines from plant biotechnology. In *Mucosal Vaccines* (Mestecky J, Russell MW, Kelsall BL, Ogra PL, Strober W, Lambrecht BN and Cheroutre H, Editors) pp 305-312, Marcel Dekker, New York

2. *Geyer GC, Evron T, §**Mor TS** and §Soreq H (2009) Organophosphate Intoxication: Molecular Consequences, Mechanisms and Solutions. In *Toxicology of Chemical Warfare Agents* (Gupta R, Editor) 691-717. Elsevier Inc, San Diego

3. *Matoba N and §**Mor TS** (2006) Plant-derived subunit vaccines, In Plant Genetic Engineering Vol. 7 B: Metabolic Engineering & Molecular Pharming (Jaiwal PK, Editor) pp 143-183. Studium Press, Houston

4. §**Mor TS**, Mason HS, Kirk DD, Arntzen CJ and Cardineau GA (2004) Plants as a production and delivery vehicle for orally delivered subunit vaccines. In *Current Vaccines* 3rd Edition (Levine M, Editor) pp 305-312, Marcel Dekker, New York

5. §**Mor TS** and Mason HS (2004) Transgenic plants as a source for subunit vaccines. In: *Handbook of Plant Biotechnology* (Christou P and Klee H, Editors) pp 768-780, John Wiley & Sons Ltd, West Sussex

6. §**Mor TS** and Soreq H (2004) Human cholinesterases from plants for detoxification. In *Encyclopedia of Plant & Crop Science* (Goodman RM, Editor) pp 564-567, Marcel Dekker, New York

7. **Mor TS** and §Arntzen CJ (2003) Plants and Human Health: Delivery of vaccines via transgenic plants. In *Plant Biotechnology 2002 and Beyond* (Vasil, JK, Editor) pp 383-387, Kluwer Academic Publishers, Dordrecht

8. **Mor TS**, Richter, L and §Mason HS (1999) Expression of rotavirus proteins in transgenic plants. In *Plant Biotechnology and In-Vitro Biology in the 21st Century* (Altman A, Ziv M and Izhar S, Editors) pp 521-524, Kluwer Academic Publishers, Dordrecht

9. **Mor TS** and §Arntzen CJ (1999) Pharmaceutical foodstuffs: oral immunization with transgenic plants. In *Plant Biotechnology and In-Vitro Biology in the 21st Century* (Altman A, Ziv M and Izhar S, Eds) pp 17-20, Kluwer Academic Publishers, Dordrecht

10. Domovich Y, **Mor TS**, Oetmüller R, Herrman RG and §Ohad I (1995) Reversible dissociation of the OEC proteins from the lumenal side of the thylakoid membrane during photoinhibition and recovery. In *Photosynthesis: From Light to Biosphere* (Mathis P, Editor) Vol IV, pp 311-314, Kluwer Academic Publishers, Dordrecht

11. **Mor TS**, Pakrasi HB and §Ohad I (1995) The impact of the F26S mutation in the β subunit of cytochrome b559 on the function and stability of photosystem II in tobacco. In *Photosynthesis: From Light to Biosphere* (Mathis P, Editor) Vol I, pp 927-930, Kluwer Academic Publishers, Dordrecht

12. §Ohad I, Keren N, Zer H, Gong H, **Mor TS**, Gal A, Tal S and Domovitch Y (1993) Light induced degradation of the photochemical reaction center II D1 protein in-vivo: An integrative approach. In *The Proceedings of the 41st Harden Conference on Photoinhibition of Photosynthesis From Molecular Mechanisms to the Field* (Baker NR and Bowyer JR, Editors) pp 161-171, Bios Scientific Publishers, Oxford

13. **Mor TS**, Post, A F, and §Ohad I (1991) *Prochlorothrix hollandica* is more sensitive to photoinhibition than *Chlamydonomans reinhardtii*. In *Regulation of Chloroplast Biogenesis* (Argyroudi-Akoyunoglou JH, Editor) pp 433-438, Plenum Press, New York

14. **Mor TS**, Post, A F, and §Ohad I (1991) Characterization of the oxygen evolving system of *Prochlorothrix hollandica*. In *Regulation of Chloroplast Biogenesis* (Argyroudi-Akoyunoglou JH, Editor) pp 427-432, Plenum Press, New York

15. Gal, A, **Mor TS**, Hauska, G, Herrmann, R and §Ohad I (1990) LHCII kinase activity associated with Isolated Cytochrome b6/f complex. In *Current Research in Photosynthesis* (Baltscheffski M, Editor) Vol I pp 783-785, Kluver Academic Publishers, Dordrecht

THESIS

• **Mor TS** (1996) *Dynamics of Photosystem II: Structural and Functional Aspects of Proteins Associated with the Reaction Center.* Academon Press, Jerusalem

ABSTRACTS OF CONFERENCE PRESENTATIONS (SINCE 2002, PARTIAL LIST)

1. *Deb A, *Srinivas D, and §**Mor TS**. Expression and purification of the HIV-1 membrane–protein Vpu. RoadMap Membrane Protein Technologies. PSI:Biology Technologies Workshop, Bethesda, **MD**, December 12, 2012

2. *Kessans SA, *Linhart M, Matoba N, and §**Mor TS**. Biochemical and immunological characterization of plant-produced HIV-1 Gag/dgp41 enveloped virus-like particles. PSI:Biology Technologies Workshop, Bethesda, **MD**, December 12, 2012

3. *Deb A, *Srinivas D, and §**Mor TS**. Expression and purification of the HIV-1 membrane–protein Vpu. RoadMap Membrane Protein Technologies. San Francisco, **CA.** November 28-30, 2012

4. *Gong Z, *Kessans SA, Lee H-HA, Dorner K, §**Mor TS** and §Fromme P. Production and Purification of Recombinant Truncated HIV-1 gp41 Consisting of the Membrane Proximal and Transmembrane Domains for Structure Determination. RoadMap Membrane Protein Technologies. San Francisco, **CA.** November 28-30, 2012

5. *Gong Z, *Kessans SA, §**Mor TS** and §Fromme P. Production and Purification of Recombinant Truncated HIV-1 gp41 Consisting of the Membrane Proximal and Transmembrane Domains for Structure Determination. Keystone Structural Biology Meeting. Keystone, Colorado. 22 January 2012.

6. *Kessans SA, *Linhart M, Matoba N, and §**Mor TS**. Biochemical and immunological characterization of plant-produced HIV-1 Gag/dgp41 enveloped virus-like particles. Keystone Structural Biology Meeting. Keystone, Colorado. 22 January 2012.

7. *Larrimore KE, Kannan L, *Robbins II N, *Garnaud PE, *Geyer B, *Woods R and §Mor TS. Selection of translation start site in transcripts of a human gene expressed in plants. American Society of Plant Biologists: Plant Biology 2011. Minneapolis, MN. 6-10 August 2011. Poster Presentation (Travel grant and Honorable Mention).

8. *Kessans SA and §**Mor TS**. Towards the production of a mucosally-targeted HIV subunit vaccine. . PBVA 4: Plant Expression Systems for Recombinant Pharmacologics. Porto, Portugal. 8-10 June 2011. (Oral presentation

9. §**Mor TS**. Transgenic plants as a source for the bioscavenging enzyme, human butyrylcholinesterase. Chemical and Biological Defense Science and Technology (CBD S&T) Conference. Las Vegas, **NV**. 14-18 November 2011.

10. *Robbins II NE, *Kannan L, and §Mor TS. Improvements to the Production Platform for Plant-Produced Butyrylcholinesterase. ASPB Western Section Meeting. Long Beach, CA. 26 February 2011.
11. Schneider JD, §**Mor TS**, Loos A, Castilho A, Grass J, and §Steinkellner H. Expression of acetyl- and butyrylcholinesterase in *Nicotiana benthamiana* with a human-like glycosylation profile. PBVA 4: Plant Expression Systems for Recombinant Pharmacologics. Porto, Portugal. 8-10 June 2011
12. Schneider JD, §**Mor TS**, Loos A, Castilho A, Grass J, and §Steinkellner H. Expression of acetyl- and butyrylcholinesterase in *Nicotiana benthamiana* with a human-like glycosylation profile. PBVA 4: Plant Expression Systems for Recombinant Pharmacologics. Porto, Portugal. 8-10 June 2011
13. *Kessans SA, *Frater J, *Matoba N, and §**Mor T**. Plant expression of chimeric Gag/gp41 virus-like particles as a mucosally-targeted subunit vaccine against HIV-1. Arizona BIOFest 2010. Scottsdale, Arizona. 27 October 2010
14. *Kannan L, *Geyer BC, *Garnaud PE, Broomfield CA, Cadieux CL, *Cherni I, Hodgins SM, Kasten SA, Kelley K, *Kilbourne J, Oliver ZP, Otto TC, *Puffenberger I, Reeves TE, *Robbins N, 2nd, *Woods RR, Soreq H, Lenz DE, Cerasoli DM, §**Mor TS** (2010) Plant-derived human butyrylcholinesterase, but not an organophosphorous-compound hydrolyzing variant thereof, protects rodents against nerve agents. Arizona BIOFest 2010. Scottsdale, Arizona. 27 October 2010
15. *Kessans SA, *Frater J, *Matoba N, and §**Mor T**. Plant expression of chimeric Gag/gp41 virus-like particles as a mucosally-targeted subunit vaccine against HIV-1. National Academy of Engineering Grand Challenges Summit 2010. Phoenix, Arizona. 8-9 April 2010
16. §**Mor, TS.** Rapid and large-scale plant-based production of catalytic nerve agent bioscavengers. 4th Annual NIH CounterACT Network Research Symposium, San Francisco, CA, June 22-24, 2010.
17. *Matoba N, *Cherni I, *Kessans S, *Frater J, *Preston K, Bomsel M, and §**Mor TS**. Biochemical and immunological characterization of the plant-derived candidate HIV-1 mucosal vaccine CTB-MPR. AIDS Vaccine 2009. Paris, **France**. 19–22 October 2009. (published in Retrovirology 2009, 6(Suppl 3):P182).
18. *Kessans SA, *Frater J, Matoba N, and §**Mor T**. Plant expression of chimeric Gag/gp41 virus-like particles as a mucosally-targeted subunit vaccine against HIV-1. AIDS Vaccine 2009. Paris, **France**. 19–22 October 2009. (published in Retrovirology 2009, 6(Suppl 3):P15).
19. *Muralidharan M, *Woodberry K, *Benally AJ, *Kannan L and §**Mor TS**. Plant cholinesterases – a reality check. The Xth International Meeting on Cholinesterases. Šibenik, **Croatia**, 20-25 September 2009
20. *Geyer BC, Kilbourne J, §**Mor TS**. Recombinant protein antidotes for the treatment of succinylcholine apnea and organophosphate poisoning. Society for Academic Emergency Medicine Annual Meeting. New Orleans, LA. May 14 – 17 2009
21. §**Mor, TS.** Rapid and large-scale plant-based production of catalytic nerve agent bioscavengers. 3rd Annual CounterACT Network Research Symposium Washington, **DC**, April 14 - 16, 2009.
22. *Cherni I, *Vassal A, *Kessans S, *Matoba N, and §**Mor TS**. Membrane proximal region-hepatitis B core antigen fusion virus-like particles and their immunogenicity in mice. AIDS Vaccine 2008. Cape Town, South Africa, Oct 13-16, 2008. Student Travel Awardee
23. *Geyer BC, Kilbourne J, §**Mor TS**. Advanced Bioscavengers for the emergency treatment of nerve agent / pesticide poisoning. American College of Emergency Physicians Scientific Assembly. Chicago, IL. September 27-30 2008
24. *Garnaud P-EE, *Kannan L, *Puffenberger I, §**Mor TS**. Rapid and large-scale plant-based production of catalytic nerve-agent bioscavenger paraoxonase-1. 3rd International Conference on Paraoxonases, Los Angeles, CA, September 7–10 2008
25. *Geyer BC, Ben-Ari S, *Delisle J, Soreq H, and §**Mor TS**. Cholinergic Excitation Modulates Chemokine Signaling in Skeletal Muscle. XIII International Symposium on Cholinergic Mechanisms. Foz do Iguaçu - Brazil, August 16-20 2008

26. *Matoba N, Kajiura H, *Cherni I, *Doran JD, Bomsel M, Fujiyama K, and §**Mor TS**. In planta expression and molecular characterization of the candidate HIV-1 mucosal vaccine CTB-$MPR_{649–684}$. P-1002 (Talk). 2008 World Congress on In Vitro Biology, Tucson, AZ, June 14-18 2008

27. *Kannan L, *Geyer BC, *Garaud P-E, *Woods RR, *Muralidharan M, *Cherni I, and §**Mor TS**. Partial characterization and purification of plant derived butyrylcholinesterase to treat organophosphate poisoning. P-2011. 2008 World Congress on In Vitro Biology, Tucson, AZ, June 14-18 2008 (This poster was selected for an oral poster presentation)

28. *Cherni I, *Vassal A, *Matoba N, and §**Mor TS**. $MPR_{649-684}$-Hep B Core Antigen fusion forms virus-like particles in plants and is immunogenic in mice. P-2013. 2008 World Congress on In Vitro Biology, Tucson, AZ, June 14-18 2008

29. *Garnaud P-EE, *Kannan L, and §**Mor TS**. Rapid and large-scale plant-based production of catalytic nerve-agent bioscavenger paraoxonase-1. P-2016. 2008 World Congress on In Vitro Biology, Tucson, AZ, June 14-18 2008

30. §**Mor TS**, *Geyer BC, *Muralidharan M, *Cherni I, Fletcher SP, Evron T, and Soreq H. Plant Produced Human Cholinesterases and Plant Cholinesterase. P-2021. 2008 World Congress on In Vitro Biology, Tucson, AZ, June 14-18 2008

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