DEEPA V. DABIR

Department of Biology, Loyola Marymount University, 1 LMU drive, Los Angeles, CA 90045

EDUCATION

2006 **Ph.D., Biology**, University of Pennsylvania, Philadelphia
Dissertation: Role of Astrocytes in the Pathogenesis of Tauopathies
Advisor: Dr. Virginia M.-Y. Lee

2000 **M.S., Biotechnology**, University of Pune, India
Thesis: Cell population growth during development of Chick Eye Lens
Advisor: Dr. Sohan P. Modak

1998 **B.S., Honor's** Life Sciences/Biochemistry, St. Xavier's College, Mumbai, India

APPOINTMENTS

2017- **Associate Professor**, Biology, Loyola Marymount University, Los Angeles, California

2011- **Assistant Professor**, Biology, Loyola Marymount University, Los Angeles, California

2011 **Adjunct lecturer**, Biology, California State University, Long Beach, California

2006-2011 **Postdoctoral Scholar**, University of California Los Angeles. Advisor: Carla M. Koehler

TEACHING, ADVISING AND MENTORING

Instructor of record at Loyola Marymount University:

2011-present BIOL 201: Cell Function (**Course coordinator: 2018)**

- Lower division lecture course for nearly all science majors and non-majors interested in health professions
- Students learn the basics of cell biology, participate in several in-class activities, and learn to comprehend primary scientific literature
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2011-present BIOL 364: Cell Culture Laboratory

- Upper-division laboratory course
- Students learn laboratory skills in handling, maintenance, and manipulation of varied mammalian cell lines while required to write a paper review.
- Fulfills LMU Core flag in Writing

2011-present CHEM 371: Basic Biochemistry Laboratory (**Course coordinator: 2011, 2012**)

- Upper division introductory laboratory course for all Biochemistry majors and other science majors including post-baccalaureate students interested in health professions
- Students learn Biochemical techniques and learn to summarize results in laboratory write-ups
- Fulfills LMU core course requirement of Interdisciplinary Connections

2012-present CHEM 373: Advanced Biochemistry Laboratory (**Course coordinator: 2012, 2013**)
- Upper-division advanced laboratory course for all Biochemistry majors
- Students conduct semester long group research project in Molecular Cloning and Protein purification.
- Fulfills LMU core course requirement of Interdisciplinary Connections

2013-present BIOL 440: Molecular Neurobiology
- Upper-division lecture course
- Emphasizes integrative aspects of neuronal physiology and biochemistry; students are required to comprehend, present and discuss primary literature
- Fulfills LMU core course requirement of Interdisciplinary Connections

2013 BIOL 398: Complex Systems (cross-listed MATH 398, ECON 398 and team-taught with faculty from Department of Mathematics and Economics)
- Upper-division lecture/laboratory course
- Investigate "complex behavior" across different systems through the use of simulation, experiment, or theoretical analysis

2011 BIOL 598: Role of Mitochondria in Neurodegenerative Disorders
- Seminar and capstone experience for Biology seniors
- Focused on discussion and presentation of primary literature related to diseases of the brain
- Students complete a class project literature review

2015 BIOL 598: Advanced Topics in Cell Biology
- Seminar and capstone experience for Biology seniors
- Focused on discussion and presentation of primary literature related to mitochondrial protein import, and role of mitochondria in disease
- Students complete a class project literature review

Other Teaching Experience:

2000-2003 **Teaching Assistant,** Introduction to Organismal Biology Laboratory, University of Pennsylvania, Philadelphia

Academic Advising:

2011- 2016 Advised 5-18 Biology majors per semester
2018- Advised 26 Biology majors per semester

Undergraduate Student Mentoring (Independent study) (* Co-author on resulting publication)
At Loyola Marymount University (major, year of graduation):

2019 Kamilah Roca-Datzer (Biology, '22)
2018- Owen Dailey (Biology, '21)
2018- Rayana Bonnell (Biochemistry,' 20)
2018- Daniel Simon (Biochemistry,' 20)
2015- Mikayla Sweitzer (Biochemistry, '19)
2014-2018 Marisa Carino (Biology, '18)
2014-2017 Kevin Nguyen***** (Biology, '18)
2013-2016 Michael Guerrero (Biology, '15)
2014-2016 Minh Luu (Biochemistry, '15)

2015-2016 Morgan Mutch (Biology, '18)
2012-2014 Jaee Tamhane (Biology, '14)
2013-2014 Lexi Alcaraz (Biology, '14)
2013-2014 Joshua Rabang (Biology, '13)
2011-2012 Robert McMickle (Biology, '12)

Other student mentoring outside of Loyola Marymount University:

2017- Danyun (Vivian) Zhang (Graduate student, UCLA)
2017- Stephanie Kennedy (Biology, California State University Northridge)
2017- Alejandro Torres Jr. (Biology, California State University Northridge)
2014-2015 Master's thesis student Amanpreet Kaur (Mississippi College, mentored at LMU)
2012-2014 Research Technician Cenyana Boon* (UCLA)
2010-2012 Undergraduate student Tanya Hioe (UCLA)
2010-2012 Research Technician Justin Hotter (UCLA)
2009-2010 Undergraduate student Samuel Irving (UCLA)
2008-2009 Master's student Johannes Zimmermann* (Charite Medical School)
2006-2007 Research Technician Frederick D. Tsai* (UCLA)
2005-2006 Undergraduate student Eric Swanson* (University of Pennsylvania)

EXTRAMURAL RESEARCH GRANTS AWARDED

2009-2011 Ruth L. Kirschstein Institutional National Research Service Award (Postdoctoral Fellowship), National Institute of General Medical Sciences, NIH

2008-2009 United Mitochondrial Disease Foundation (UMDF) Postdoctoral Fellowship.

2000-2004 Mahindra Trust Scholarship Student Research Award, India

1998-2000 Sir Ratan Tata Student Research Award, India

EXTRAMURAL RESEARCH GRANTS (APPLIED)

2017 NRSA (F33) Mitochondrial redox pathway in stem cell homeostasis and pluripotency
PI: **Deepa V. Dabir**, Sponsor: Michael Teitell , Co-Sponsor: Carla M. Koehler

2016 NIH (R21) A Nutrition Intervention Targeting BDNF and GDNF in Recovering Alcohol-Dependent Adults
PI: Joseph W. LaBrie, **Co-PI: Deepa V. Dabir**, Co-PI: Hawley C. Almstedt

2016 Henry Dreyfus Teacher-Scholar Award

2016 NIH (R15) Characterization and Functional implications of the Erv1/ALR Oxidative folding pathway in yeast and neurons
PI: Deepa V. Dabir,

2015 NSF (RUI) Biochemical and Biophysical Characterization of Aim32p; a putative Thioredoxin-like ferredoxin protein in the Mitochondrial Intermembrane Space of Yeast. **PI: Deepa V. Dabir**

INTRAMURAL GRANTS AWARDED

2017	Kadner-Pitts Research Grant
2016	Kadner-Pitts Research Grant
2015	Seaver College Research Grant
2014	Kadner-Pitts Research Grant
2014	Seaver College Research Grant
2013	Seaver College of Science and Engineering Academic Grant
2013	Interdisciplinary Course Development (Funded by W.M. Keck Foundation)
2012	Kadner-Pitts Equipment Grant
2011	New Faculty Research Grant
2000	National Institute on Aging Graduate Assistant Teaching Grant, University of Pennsylvania

SERVICE TO LMU AND THE PROFESSION

Biology Department

2019	Member, Kadner-Pitts Grant Review Committee
2018	*Chair*, Marine Biology Faculty Search Committee
2017	*Ad hoc* Member Biology Faculty Search Committee (Animal Physiology)
2015	Member, Kadner-Pitts Grant Review Committee
2015	Writing flag approved for BIOL 364 (Cell Culture Laboratory Course) Interdisciplinary Connections Core approved for BIOL 440 (Molecular Neurobiology)
2012-2016	Department representative for LMU Preview Day
2013	Participant, Teaching with Technology Day (Center for Teaching Excellence)
2012	Judge, West Coast Biological Sciences Undergraduate Research Conference (WCBSURC)
2011	Judge for the TriBeta Annual debate “Use of stem cells as cure”

Seaver College of Science and Engineering

2012-	Member, Health Professions Advisory Committee
2017	*Ad hoc* Member, Biochemistry Tenure-Track Faculty Search Committee
2015-2016	Co-Chair, Health Professions Advisory Committee
2015-2016	Member, Health Professions Director Search Committee
2015	*Ad hoc* Member, Biochemistry Tenure-Track Faculty Search Committee

Loyola Marymount University

2018-	Member, Faculty Library Committee, LMU
2016-	Member, LMU Athletic Advisory Board
2015	Selection Committee Member, LMU Undergraduate Research Symposium

Journals and peer review of grant proposals: *Eukaryotic Cell, Biochimica et Biophysica Acta, Canadian Journal of Physiology and Pharmacology, World Journal of Surgical Oncology, Laboratory Investigation (Nature Publishing Group), Apoptosis*

NIH *ad hoc* reviewer for R01 Grants

EXTERNAL SERVICE AND OUTREACH

2012- present	Mentor, Issues in Teaching in Higher Education, UCLA
2011- 2017	Advisory committee member, "Preparing for Future Faculty" postdoctoral grant, UCLA
2015	Career Panel Member, BiochemASE (The Biochemistry Association for Student Enrichment), UCLA
2014	Judge, Undergraduate Research Symposium, UCLA
2013	Participant, ASBMB Special Symposia "Student-Centered Education in the Molecular and Life Sciences" Seattle University

SUPERVISED UNDERGRADUATE RESEARCH STUDENT PRESENTATIONS

(Presentations given by my research students accepted for conferences, bold indicates presenting author)

2019 **Mikayla Sweitzer,** Danyun Zhang, Owen R. Dailey, Carla M. Koehler, & Deepa V. Dabir
" Characterization of Aim32, a novel [2Fe-2S] yeast mitochondrial protein"

1) Oral presentation, LMU Undergraduate Research Symposium, LMU (March 2019)

2) ***Best oral presentation award***, West Coast Biological Sciences Undergraduate Research Conference, UCSD (March 2019)

3) ***2nd place award in overall research excellence***, TriBeta Pacific Division Conference, UCSF (April 2019)

2018 **Bramble, Lily F**., Cook, Makenzie M., LaBrie, Joseph.W., Dabir, Deepa V., & Almstedt, Hawley C."Analysis of Oral Contraceptive Use and Bone Turnover Markers in College-aged Females". Poster presentation. Southwest American College of Sports Medicine Annual meeting, Costa Mesa, California, 2018

2018 **A.Torres Jr**, S.A.L. Kennedy, D. Zhang, D. V. Dabir, C.M. Koehler, C.S. Malone, M. A. Teitell. "MitoBloCK-6 selectively induces apoptosis in human pluripotent stem cells". Poster presentation, 14th Annual Stem Cell Symposium, UCLA, 2018

2017 **Danyun (Vivian) Zhang (UCLA),** Deepa Dabir (LMU), Carla Koehler (UCLA) "Using a small molecule to characterize mitochondrial intermembrane space proteins CHCHD2 and CHCHD10" Poster presentation, UCLA Mitochondria Symposium, 2017

2016 **Kevin Nguyen (LMU),** Robert McMickle (LMU) and Tanya Hioe (UCLA) "Aim32p is a novel member of the Erv1 translocation pathway within the Mitochondrial Intermembrane Space of Saccharomyces cerevisiae".

1) Poster presentation, National Council for Undergraduate Research, Asheville, NC (April 2016),

2) Poster presentation, ASBMB, San Diego (April 2015) and,

3) Poster presentation, LMU Undergraduate Research Symposium (March 2015)

2015 **Michael Guerrero (LMU)** and Lexi Alcaraz (LMU) "Characterization of MitoBloCK-5, an inhibitor of ALR in HeLa cells".

1) Poster presentation, Loyola Marymount University Undergraduate Research Symposium (March 2015) and,

2) Poster presentation, West Coast Biological Sciences Undergraduate Research Conference, Point Loma Nazrene University (April 2015).

2015 **Minh Luu (LMU)** and Kevin Nguyen (LMU) "Characterization of Aim32p, a putative thioredoxin-like ferredoxin protein identified in the mitochondrial intermembrane space of yeast".

1) Poster presentation, Loyola Marymount University Undergraduate Research Symposium (March 2015) and,

2) Poster presentation, West Coast Biological Sciences Undergraduate Research Conference, Point Loma Nazrene University (April 2015).

2014 **Jaee Tamhane** and Joshua Rabang (LMU), "Characterization of a novel Erv1 interacting protein; Aim32". Poster presentation, Loyola Marymount University Undergraduate Research Symposium

2013 **Jaee Tamhane (LMU)**, "Characterization of Yml, a novel mitochondrial intermembrane space protein. Poster presentation, Southern California Conference for Undergraduate Research, Whittier College

2013 **Robert McMickle (LMU)** and Tanya Hioe (UCLA), "Characterization of Yml, a new putative anaerobic electron acceptor of the mitochondrial IMS oxidative protein folding pathway". Poster presentation, West Coast Biological Sciences Undergraduate Research Conference, Point Loma Nazrene University, San Diego

2012 **Robert McMickle (LMU)** and Tanya Hioe (UCLA), "Characterization of Yml, a putative anaerobic electron acceptor of the mitochondrial IMS oxidative protein folding pathway"

1) Poster presentation, Loyola Marymount University Undergraduate Research Symposium

2) Poster presentation, West Coast Biological Sciences Undergraduate Research Conference, Loyola Marymount University

2012 **Tanya Hioe (UCLA)**, "MitoBLoCK-5,a Polychlorinated Biphenyl compound (PCB) is a specific inhibitor of Erv1" Poster presentation, UCLA Undergraduate Research Symposium, UCLA

2011 **Samuel Irving (UCLA)**, "Characterizing Mitochondrial Protein Import in Mammalian cells using Small Molecule Modulators". Poster presentation, Science Poster Day, UCLA
Deans award winner

PROFESSIONAL AFFILIATIONS

American Society for Biochemistry and Molecular Biology