Precision Mentorship - Are we there yet?

February 11, 2022
8 AM - 1:20 PM CST

Organized by:

Rama Soundararajan, PhD
Associate Professor
Director, ITERT Research Training Program
[Interdisciplinary Translational Education and Research Training]
Director, Educational Initiatives and Training, Department of Translational Molecular Pathology
Faculty Liaison, Office of Postdoctoral Affairs and Development
UT MD Anderson Cancer Center

Sendurai Mani, PhD
Professor
Department of Translational Molecular Pathology
Co-Director, Metastasis Research Center
Co-Director, Center for Stem Cell & Developmental Biology
UT MD Anderson Cancer Center

A symposium on core attributes for tailored mentorship for scientists.
The Precision Mentorship Symposium has been developed to examine the evolution of the mentorship process in science, essential elements of successful mentorship, and the growing need for tailored mentor-mentee relationships as we drive a culture-change toward more equity and inclusion. Attendees will hear from a panel of experienced mentors and leaders in the mentorship space who are well-recognized for their effective mentorship in various stages of trainee career development and progression, as well as from trainees themselves. It is our expectation that this “learn-and-share” forum will facilitate identification of core elements of successful mentorship through the decades in the context of training the next generation of biomedical scientists, and aid in defining the future of tailored mentorship experiences for graduate students and postdoctoral fellows.
RAMA SOUNDARARAJAN  
UT MD ANDERSON CANCER CENTER  
Dr. Rama Soundararajan is an award-winning scientist and educator with 25+ years of biomedical research experience in academia. She is an Associate Professor at the Department of Translational Molecular Pathology, Director of Educational Initiatives & Training, and Faculty Liaison to the Office of Postdoctoral Affairs and Development, at UT MD Anderson Cancer Center (MDACC). She is also a member of the International Association of Medical Science Educators (IAMSE), and the American Association for Cancer Education (AACE). As Director and Co-Founder of ITERT [Interdisciplinary Translational Educational Research Training program], an advanced career training platform for undergraduates, graduate students and postdoctoral fellows in translational medicine, over the last 8 years, she has created and taught several STEM professional skills and career-development courses for students in all career stages. In her current roles, she is responsible for providing strategic educational leadership which includes a vision for the scope, direction, objectives and processes for trainee career development and mentorship in biomedical sciences. She is the recipient of multiple prestigious awards for her contribution to excellence in education & mentorship at the graduate- and post-graduate level, including the President’s Faculty Excellence Award for Education and Mentorship Advancement, & the DPLM Faculty Excellence Award for Education at MDACC. Dr. Soundararajan completed her PhD from the Indian Institute of Science, postdoctoral training from UCSF, and an Executive Leadership Certificate from Cornell University.

SENDURAI MANI  
UT MD ANDERSON CANCER CENTER  
Sendurai A. Mani is a Professor in the Department of Translational Molecular Pathology at MD Anderson Cancer Center. He is also the co-director of the Metastasis Research Center as well as the Center for Stem Cell and Developmental Biology at MD Anderson Cancer Center. Dr. Mani got trained at MIT/Whitehead Institute with Prof. Robert Weinberg. He was the first to demonstrate that cancer cells acquire stem cell properties by activating the latent embryonic epithelial-mesenchymal transition (EMT) program. This finding provided the foundation and explanation for the presence of plasticity within the tumor as well as the development of metastasis and resistance to various treatments. Dr. Mani’s laboratory continues to investigate the biology and the contribution of EMT and the cancer stem cells in developing metastasis and chemoresistance. Dr. Mani has received numerous prizes and awards for his research, including a Jimmy V foundation’s V-Scholar Award and The American Cancer Society Research Scholar award. He has recently been elected as a fellow of the American Association for the Advancement of Sciences (AAAS). Education and mentorship are central to Dr. Mani. He received remarkable mentorship from his doctoral and postdoctoral mentors. He gives utmost priority to mentoring his trainees. He has trained over 40 trainees, including postdocs, graduate students, undergraduate students, instructors, assistant professors, associate professors, and visiting scholars.
JEFFREY ROSEN  
BAYLOR COLLEGE OF MEDICINE  
Jeffrey Rosen studied chemistry at Williams College where he received a BA degree in 1966. His Ph.D. research at the Roswell Park Cancer Institute helped elucidate the mechanisms for glucocorticoid resistance in lymphomas. Dr. Rosen is currently a Distinguished Service Professor, the Vice Chair and the C.C. Bell Professor of Molecular & Cellular Biology and Medicine at Baylor College of Medicine. He was the recipient of two MERIT awards from the National Cancer Institute on a grant entitled, “Hormonal Regulation of Breast Cancer” currently in its forty-fourth year of consecutive funding. His laboratory has authored 315 publications and book chapters. He is the PI on the CPRIT BCM Comprehensive Cancer Training Program. Dr. Rosen has trained 38 graduate students and 51 postdoctoral fellows many of whom are now faculty at major academic institutions in the USA and abroad. He has received the Marc Dresden Excellence in Graduate Education Award, the Barbara & Corbin J. Robertson, Jr. Presidential Award for Excellence in Education at BCM, the Endocrine Society Edwin B. Astwood Lecture Award, the Michael E. DeBakey, M.D., Excellence in Research Award, the Susan G. Komen for the Cure Brinker Basic Science Award, and the AACR Distinguished Lectureship in Breast Cancer Research. He is also an AAAS Fellow. Dr. Rosen is a Susan G. Komen Scholar, and the co-leader of Breast Program of the Dan. L. Duncan NCI-designated Comprehensive Cancer Center.

ANNA O’CONNELL  
CENTER OF THE IMPROVEMENT OF MENTORED EXPERIENCE IN RESEARCH (CIMER)  
Anna is a higher education consultant at ABO Consulting and a Master Facilitator with the Center for the Improvement of Mentored Experience in Research at UW-Madison (CIMER). For more than a decade, Anna served as Director of University of North Carolina at Chapel Hill’s Biological and Biomedical Sciences Program where she was responsible for admissions, first year training for new PhD students, and student affairs for all biomedical students. In her consulting business Anna continues to focus on STEM training climate. She works with STEM departments, faculty, and students on mentorship evaluation, wellbeing for trainees, and equity at the individual laboratory and departmental level. She is currently working to understand what shapes the day-to-day climate in research laboratories and how this can be leveraged to enhance trainee wellbeing and persistence in STEM. As a Master Facilitator with CIMER, Anna leads mentorship education workshops and consults with institutions on building a culture of mentorship across the organization.
SPEAKERS

NICK KUBURICH
UT MD ANDERSON CANCER CENTER
Dr. Nick Kuburich is a postdoctoral researcher in Professor Sendurai Mani’s lab. He has been working with Dr. Mani for over three years. Dr. Kuburich did his undergraduate at Arkansas Tech University in the Honors College and his Ph.D. in Microbiology and Molecular Genetics at Oklahoma State University. His graduate research was on signaling pathways involved in D. discoideum development and migration. In Dr. Mani’s lab, Dr. Kuburich has studied the process of epithelial to mesenchymal transition in triple-negative breast cancer. His primary focus has been on the role of the mesenchymal intermediate filament vimentin and how disrupting normal vimentin regulation leads to multinucleation, a process that is involved in therapeutic resistance and relapse in breast cancers. While at MD Anderson, Dr. Kuburich received an NIH T32 fellowship in Cancer Biology where he further studied vimentin’s role in multinucleation. During this time Dr. Kuburich has presented at multiple scientific conferences and joint lab meetings. He has led and moderated journal club meetings. He has also participated in ITERT career development courses and meetings with distinguished seminar speakers in the department of Translational Molecular Pathology. Dr. Kuburich plans to further his academic career by starting his laboratory in the near future, inspired by his mentors and his enjoyment of mentoring others.

OLUWATOYOSI ADEWUNMI
BAYLOR COLLEGE OF MEDICINE
Toyosi Adewunmi grew up in Winnipeg, Manitoba, CA and has been a resident of Houston for over ten years. She graduated from McMurry University in 2013 with a bachelor’s degree in Biomedical Science and received her master’s degree from Texas State University in Biochemistry. Toyosi is now a fifth-year graduate student in the Translational Biology and Molecular Medicine program at Baylor College of Medicine in Dr. Jeffrey Rosen’s lab where she is studying the effect of IncRNA MALAT1 inhibition on the tumor microenvironment in Triple Negative Breast Cancer.
SPEAKERS

VARSHA GANDHI  
UT MD ANDERSON CANCER CENTER
Varsha Gandhi, Ph.D. is a Professor and ad interim Chair for the department of Experimental Therapeutics, Division of Cancer Medicine at The University of Texas MD Anderson Cancer Center in Houston, Texas and holds a Waun Ki Hong Distinguished Chair in Translational Oncology endowed position. She is a co-leader of the MD Anderson’s CLL Moon Shots Program. Dr. Gandhi’s research focus is clinical and translational in the area of development of therapeutics for hematological malignancies. She has published >300 articles and serves on the editorial board of many journals. She designed, developed, and established a new graduate program “Experimental Therapeutics” at the Graduate School of Biomedical Sciences and has supervised and trained many graduate students, postdoctoral fellows, and trainees. She is a faculty liaison for the postdoctoral office.

OLIVER BOGLER  
NATIONAL CANCER INSTITUTE/NATIONAL INSTITUTE OF HEALTH
Oliver studied Natural Sciences at Cambridge University, completed his PhD at the Ludwig Institute for Cancer Research in London and did post-doctoral fellowships at the Salk Institute, and the Ludwig Institute, San Diego. He was on faculty at Virginia Commonwealth University, Henry Ford Hospital and the University of Texas MD Anderson Cancer Center, where he also served as director of basic research for the Brain Tumor Center. His work focused on EGFR signaling and novel platinum compounds in glioblastoma. In 2010, he became MD Anderson’s Vice President for Global Academic Programs and fostered cancer research and training across the globe. In 2011, he was also appointed Senior Vice President for Academic Affairs, stewarded MD Anderson’s education mission and oversaw 300 people who supported 1,700 faculty and more than 2,000 trainees. In 2018 he became COO at the ECHO Institute at the University of New Mexico. In 2020 he joined the NCI as Director of the Center for Cancer Training.
SPEAKERS

GEORGE A. CALIN
UT MD ANDERSON CANCER CENTER

George Adrian Calin received both his M.D. and Ph.D. degrees at Carol Davila University of Medicine in Bucharest, Romania. After working cytogenetics as undergraduate student with Dr. Dragos Stefanescu in Bucharest, he completed a cancer genomics training in Dr. Massimo Negrini’s laboratory at University of Ferrara, Italy. In 2000 he became a postdoctoral fellow at Kimmel Cancer Center in Philadelphia, PA, and while working in Dr. Carlo Croce laboratory Dr. Calin was the first to discover the link between microRNAs and human cancers, a finding considered as a milestone in microRNA research history. He is presently a Professor in Experimental Therapeutics and Leukemia Departments at M. D. Anderson Cancer Center in Houston and studies the roles of microRNAs and other non-coding RNAs in cancer initiation and progression and in immune disorders, as well as the mechanisms of cancer predisposition linked to non-codingRNAs. Furthermore, he explores the roles of body fluids miRNAs as potential hormones and biomarkers, as well as new RNA therapeutic options for cancer patients. Simply, he is having fun making discoveries and publishing and, from time to time, getting funded grants!

SHOBA SUBRAMANIAN
UNIVERSITY OF MICHIGAN MEDICAL SCHOOL

Dr. Shoba Subramanian (she/her) is the director of curriculum and educational initiatives at the University of Michigan Medical School. In her current role, she uses scientific approaches toward innovations in career and professional development (CPD) as well as in curricular initiatives at the Office of Graduate and Postdoctoral Studies. She leads a team which provides sustained weekly and many annual cohort-based CPD programs to support over 1200 trainees. Additionally, she leads a project to understand mentoring practices in the biomedical graduate and postdoctoral education. Prior to Michigan, Subramanian was assistant department head for graduate affairs at the Department of Biological Sciences, Carnegie Mellon University (CMU) and an assistant teaching professor, where she served on leadership in undergraduate, masters, and doctorate programs from 2011-17. Over the past decade, she has founded and taught several science courses alongside many professional skills courses, program series, and workshops. At CMU, she was recipient of two faculty education fellowship awards. At Michigan she is an inaugural RISE fellow and is co-principal investigator on the NSF's IGE grant. She is an elected member of the National Postdoctoral Association’s Board of Directors and of the AAMC’s Group on Research, Education, and Training, GREAT steering committee. Dr. Subramanian earned her doctoral degree in biological sciences from CMU and completed postdoctoral training at the University of California in San Francisco (UCSF) and at CMU.
SPEAKERS

CHERILYNN SHADDING
MD ANDERSON UTHEALTH GRADUATE SCHOOL OF BIOMEDICAL SCIENCES
Dr. Cherilynn R. Shadding is a passionate expert in training, mentoring and developing underrepresented students in STEM fields and providing tools to faculty to enhance cultural awareness. Currently she is the Associate Dean of Diversity and Student at The University of Texas MD Anderson Cancer Center UT Health Graduate School of Biomedical Sciences in Houston, where she also holds an adjunct faculty positions at UTHealth and MD Anderson. In her role she oversees a broad portfolio within student affairs that includes admissions, alumni affairs, career development, diversity and several other areas. She has published and presented nationally on her work which focused on best practices in recruitment and outcomes for small programs. Before transitioning to a career in administration and diversity education research, her scientific work focused on cellular pathways involved in cardiovascular diseases, the area in which she completed her graduate and postgraduate work. Dr. Shadding is a graduate of Fisk University (BA and MA in Biology) and Meharry Medical College (PhD in Physiology) and completed postdoctoral training at the NIH and Washington University in St. Louis.

ROBERT TILLMAN
BAYLOR COLLEGE OF MEDICINE
Robert Tillman is a faculty member in the Department of Education, Innovation & Technology at Baylor College of Medicine and serves as both Director of Faculty Development for Baylor College of Medicine and Director of Professional Development and and Mentoring at the Graduate School of Biomedical Sciences at BCM. His professional interests lie in professional development and career support for populations across academic careers in health and biomedical sciences. He has pursued these interests at a number of institutions, from the development of a new Postdoctoral Program in the Graduate School of Biomedical Sciences at NYU School of Medicine to previous faculty development positions Columbia University Irving Medical Center and MD Anderson Cancer Center prior to his current role. The development of mentoring programs and opportunities has been a particular professional interest. Since 2012 he has been engaged with delivering mentor training as a National Research Mentoring Network Trained Master Facilitator providing mentor training locally and throughout the United States. He continues to be active in the Association of American Medical Colleges’ Group on Faculty Affairs, the Texas Consortium for Faculty Success, and in supporting the National Postdoctoral Association.
Dr. Krishna Bhat is an Associate Professor in the department of Translational Molecular Pathology at the M.D. Anderson Cancer Center. His laboratory is mainly interested in designing novel molecular targets and diagnostic approaches for brain cancer.

Recently his laboratory is utilizing single cell approaches to understand the brain tumor microenvironment. Aside from overseeing a NIH funded laboratory, he has extensive leadership positions including membership of the Brain Tumor Center Executive Committee, NIH and DoD funded multi-PI grants. He is also a Project Leader in the M.D. Anderson Moon Shots Initiative, co-Director of the Career Enhancement Program Award in the Brain SPORE, and a co-Mentor and Chair of steering committee for the T32 NCI Training Program in Translational Genomics and Precision Medicine Approaches in Cancer.
SYMPOSIUM SCHEDULE

8:00 AM  
Welcome & Introductions  
Rama Soundararajan & Sendurai Mani  
UT MD Anderson Cancer Center, Houston

8:10 AM  
Mentorship Strategies to Serve Varied Learners  
Jeff Rosen  
Baylor College of Medicine, Houston

8:30 AM  
The Evolving Role of "Mentorship" in Science  
Anna O’Connell  
Higher Education Consultant, CIMER Mentorship  
Associate and Master Facilitator  
[Center of the Improvement of Mentored Experience in Research (CIMER)]

8:50 AM  
Mentoring Needs-Assessment for Postdoctoral Fellows  
Nick Kuburich, Postdoctoral Fellow  
UT MD Anderson Cancer Center, Houston

9:00 AM  
Overcoming Ethnic Disparities in Graduate Education: Role of Mentors  
Oluwatoyosi Adewunmi, Graduate Student,  
Baylor College of Medicine, Houston

9:10 AM  
The Impact of Organizational Mentorship Culture  
Varsha Gandhi  
UT MD Anderson Cancer Center, Houston
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<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker</th>
<th>Institution, City</th>
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<tbody>
<tr>
<td>9:30 AM</td>
<td>Mentoring in NCI's support for cancer researchers during their training</td>
<td>Oliver Bogler</td>
<td>National Cancer Institute/Bethesda</td>
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<td>9:50 AM</td>
<td>Committing to the Success of International Trainees: Key Mentoring Considerations</td>
<td>George Calin</td>
<td>UT MD Anderson Cancer Center, Houston</td>
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<td>10:10 AM</td>
<td>Break</td>
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<tr>
<td>10:30 AM</td>
<td>Deriving the Best Out of a Mentor-Mentee Relationship</td>
<td>Sendurai Mani</td>
<td>UT MD Anderson Cancer Center, Houston</td>
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<tr>
<td>10:50 AM</td>
<td>Building a Successful Mentoring Program</td>
<td>Rama Soundararajan</td>
<td>UT MD Anderson Cancer Center, Houston</td>
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<td>11:10 AM</td>
<td>A Mixed Methods Analysis of Mentorship Perceptions and Practices in Biomedical PhD and Postdoctoral Training</td>
<td>Shoba Subramanian</td>
<td>University of Michigan Medical School, Ann Arbor [National Postdoctoral Association]</td>
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<tr>
<td>11:30 AM</td>
<td>Creating an Equitable Culture for Graduate Student Success</td>
<td>Cherilynn Shadding</td>
<td>MD Anderson UTHealth Graduate School of Biomedical Sciences, Houston</td>
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11:50 AM  
**Engagement on the Front Lines: Learnings From 1000+ Mentors & Mentees**  
Robert Tillman  
Baylor College of Medicine, Houston  
[National Research Mentoring Network (NRMN)]

12:10 PM  
**Panel Discussion: Defining Core Elements of Successful Mentorship Practices in Science**  
Moderator: Robert Tillman  
Panelists: Krishna Bhat  
UT MD Anderson Cancer Center, Houston  
All Speakers

1:10 PM  
**Conclusion and Program Wrap-Up**  
Rama Soundararajan & Sendurai Mani  
UT MD Anderson Cancer Center, Houston
We would like to express our gratitude to all who helped make this symposium possible. For 8 years, ITERT has had the generous support of TMP faculty mentors and our community of trainees. We are extremely grateful to you all for your continued support. We extend special thanks to our Symposium Sponsor, Dr. Ignacio Wistuba, MD, and our Symposium Coordinator, Ebonie Hatfield.

Ignacio I. Wistuba, MD
Division Head ad interim
Chair, Dept of TMP
Pathology-Lab Medicine
Symposium Sponsor
UT MD Anderson Cancer Center

Ebonie Hatfield
Program Manager, ITERT
Symposium Coordinator
UT MD Anderson Cancer Center