

CURRICULUM VITAE

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1. EDUCATION

1981-1984 B.Sc. in Chemistry, University of Kerala, India
1984-1986 M.Sc. in Applied Chemistry, Cochin University of Science & Technology, India
1987-1993 Ph.D. in Chemistry, University of Kerala, India
1991-1992 Postdoctoral training in Chemistry, University of Texas at Austin, Austin, Texas.
1994-1995 Postdoctoral training in Biochemistry and Molecular Biology, UTHSC, San Antonio.

2. PROFESSIONAL EXPERIENCE

1986-1987 Graduate Research Assistant, Indian Space Research Organization, India
1996-1997 Research Associate, University of North Texas Health Science Center, Fort Worth, Texas.
1997- 2016 Research Assistant Professor, University of North Texas Health Science Center, Texas.
2007- present Biosafety officer, University of North Texas Health Science Center, Fort Worth, Texas.
2008- 2010 Academic Advisor, PREPARE Program, UNT Health Science Center, Fort Worth, Texas.
2012-present Radiation safety officer, University of North Texas Health Science Center, Fort Worth, Texas
2013- present Laser Safety Officer, University of North Texas Health Science Center, Fort Worth, Texas.
2013-2016 Adjunct Faculty, Chemistry Department, Texas A&M, Commerce, Texas.
2016- 2020 Assistant Professor, University of North Texas Health Science Center, Fort Worth, Texas.
2016- present Associate Director, Environmental Health and Safety, UNT Health Science Center, Fort Worth.
2016- present NIH/ PDRT program Coordinator, CDIP, UNT Health Science Center, Fort Worth, Texas.
2020- Present Director, Biological Safety Division, Environmental Health and Safety, UNTHSC, Fort Worth, Texas.

3. HONORS /AWARDS/ Patent

- STAR Fellowship, Steps Toward Academic Research (STAR) UNTHSC, Fort Worth, Texas. May 2019.
- Interprofessional Education – Team STEPPS master trainer certification – April 2019
- Inter Professional Education (IPE) certification for faculty, UNTHSC – January 2019
- Team Based Learning Collaborative Fundamental level certification – 2018
- Certificate of Teaching excellence, UNTHSC – 2018
- INSPIRE Leadership Program, UNTHSC, 2017
- Registered Biosafety Professional Certification, American Biological Safety Association- 2012, 2018.
- Excellence in Leadership, University of North Texas Health Science Center, Fort Worth, Texas, 2012.
- Judges Travel Subsidy Award 2008 Annual Biomedical Conference for Minority Students
- Postdoctoral Fellowship, UT Austin, Austin, Texas – 1991
- University Grants Commission Fellowship, Govt. of India 1986-1990
- **Patent – CA 2780482 A1, Hdl particles for delivery of nucleic acids**
- Expert Panel Member HOSA (Health Occupational Students Association)/ Judge 2009.
- Member of the Judging Panel for scientific poster presentation, Annual Biomedical Research

- Conference for Minority Students (ABRCMS) 2008 and 2009
- Member Advisory Board, Indian Society for Chemists and Biologist 26th annual conference
- Member, International Engagement Committee, American Biological Safety Association (ABSA)

4. **MEMEBRSHIP IN PROFESSIONAL COMMITTES** -International, National and Institutional
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|---------------|---|
| 2007- present | American Biological Safety Association (ABSA), Scientific Program Committee, Training Tool Committee, Preconference Course Committee, International Engagement Committee, Educational Operation Committee |
| 2013- present | Southern Biosafety Association |
| 2015- present | South Texas Chapter of Health Physics Society |
| 2006- present | UNTHSC Bio safety Committee, Radiation safety Committee, IACUC. |

5. **TEACHING AND TRAINING**

More than 25 years of teaching and training experiences to offer.

Developed and taught in regular class room teaching, blended course, remote teaching (online teaching).

Developed and taught graduate level courses on Biochemistry, biological safety, Responsible conduct of Research, Laboratory management. Conducted several training workshops on safety, Nanosafety, security and emergency management. Certified Inter Professional Education (IPE) trainer and Team Based Learning (TBL) module facilitator. Developed various online courses, IPE modules, TBL modules on science topics, biosafety, Nanosafety, Responsible conduct of Research, Laboratory management, emergency management and Business continuity. Courses and training modules are developed for online courses and trainings.

COURSES DEVELOPED AND OFFERED

BMSC 5121 – Ethics in Clinical Research (Compliance and Policy) (2SCH)

200+ attendees, offered in every Spring, Ethical principles in biomedical collaborative research involving human and animal subjects, and conflict of interest and commitment are discussed and reinforced with case studies.

Role: Course director & Course instructor

MIMG 5225 – Introductory Biochemistry Course (3SCH) – Summer course

Role: Course director & Course instructor

BMSC 5390-Special Problems - Responsible Conduct of research

Role: Course director & Course instructor

BMSC 5301 – Biochemistry course.

Role: Course Instructor

Online course for Introductory Biochemistry MIMG 5225 -1 and 2 (3SCH)

Role: Course director & Course instructor

Online course for BMSC 5301 – Biochemistry course.

Role: Course Instructor

Courses Offered at Texas A&M Commerce, Texas

CHEM 597- Laboratory Safety – 3SCH

This course will provide you an in-depth knowledge and detailed outline of the fundamentals of lab safety and effective laboratory safety programs.

CHEM 314 - Biochemistry

This introductory course in biochemistry is intended to provide undergraduate and graduate students with a foundation and in depth knowledge of biochemistry.

CHEM 414 - Biochemistry

This introductory course in biochemistry is intended to provide undergraduate and graduate students with a foundation and in depth knowledge of biochemistry. This course will also be combined with the Biochemistry laboratory course includes Laboratory safety, design of experiments, data analysis, chromatographic methods; electrophoresis; spectrophotometry; enzyme purification; and characterization of proteins, and lipids.

CHEM 514 – Biochemistry

The main objectives of this course are to provide a basic foundation and understanding of the principles of modern biochemistry necessary for further work in the biochemical/biomedical areas.

TRAININGS DEVELOPED AND OFFERED

- Laboratory Biosafety training Level BSL1 and BSL2 (Basic)- 2000+ attendees
- Laboratory Biosafety training Level BSL1 and BSL2 (Advanced with certification) – 400+ attendees
- Basic principles and preparedness training for a biological outbreak or disaster
- Basic Chemical safety, Nanosafety and radiation safety training
- Radiation Safety Training
- Animal biosafety training ABSL1 & ABSL2
- How to Sustain an effective Biological Safety Program using the resources you have - **ABSA course for 600+ safety professionals. Invited course for International conference**
- **New Complimentary Course (CITI program)- COVID-19: Back to Campus (Fall 2020)**

TRAINING PROGRAM FOR STUDENTS

PDRT (NIH funded 10 weeks training program): 60 students (4 cohorts) completed the program.

PREP (NIH funded training program for graduate students) ~25 students completed.

SPH (School of Public Health) practicum students - 9 students completed the training.

FACILITATION OF ENTERING MENTORING TRAINING

A collaborative learning relationship that proceeds through purposeful stages over time and has the primary goal of helping mentees acquire the essential competencies needed for success in their chosen career. It includes using one's own experience to guide another person through an experience that requires personal and intellectual growth and development.

Objective: Workshop participants will work with a community of peers to develop and improve their mentoring skills. By the end of the Session, participants should be able to articulate a personal mentoring philosophy to anyone inside or outside their discipline and have multiple strategies for dealing with mentoring challenges.

Content: The content of each session in this curriculum is designed to address the key concerns and challenges identified by research mentors.

1. Entering mentoring in Research, Faculty and staff at Alabama State University, Montgomery, Alabama., Workshop , Develop and deliver the workshops – 14 participants.

2. Entering Mentoring in Research, Faculty at Tuskegee University, Tuskegee, Alabama, Workshop , Design and Deliver workshop – 10 participants.

6. SCHOLARLY

Ongoing Research Support

1R25HL125447-01A1 Maya Nair (PI) 04/01/2016 – 12/31/2020
National Institutes of Health

Promoting Diversity in Research Training for Health Professionals (PDRT)

The goal of this program is to conduct a 10-week research program for underrepresented and disadvantaged students in the health professions (medical, pharmacy, public health and health professions), supplemented with academic activities that broaden their scientific background and motivate them to incorporate biomedical sciences research in their professional career.

Role: PI

RF00187 Dr. Robinson (PI) 12/01/2019 - 12/31/2020
TCHD Piolet Program

A Novel family-based E-health intervention process to reduce obesity U54 Pilot Project

The goal of this project is to reduce childhood obesity in minority population in the DFW area using a novel family-based E-health intervention process.

Role: Collaborator

U54 Vishwanatha, Jamboor (PI)
Texas Center for Minority Health, Education, Research and Outreach

Role: Key Personal

2 Invited Seminars

- Invited speaker for nano TX USA '08, Dallas, TX, USA. October 2 2008
- Invited speaker, 95th Indian Science Congress, Vizag, India. January 3, 2008
- Invited speaker, 97th Indian Science Congress, Trivandrum, India. January 3, 2010
- Chair of the session, 97th Indian Science Congress, Trivandrum, India. January 7, 2010
- Invited speaker for NIPiCON 2018, January 25-27, Allahabad, India, 2018.
- Chair of the session, NIPiCON 2018, January 25-27, Allahabad, India, 2018.
- Invited speaker, Mahatma Gandhi University, Kottayam, India, February, 2018
- Plenary session speaker, 4th international conference on Nano materials, MG University, India,
- Session Chair, 4th international conference on Nano materials, MG University, India, April 2019.
- Workshop presenter on Team Based Learning, Mahatma Gandhi University, Kottayam, April, 2019.
- Workshop presenter on Grantsmanship to Successful Funding of Research, MG University, India. April, 2019.
- Invited speaker for HBCU Faculty Development, Houston, Texas, October 2019.
- UGC lecture series, Guru Ghasidas University, Bilaspur, Chhattisgarh, India, February, 2021.
RCR –Scientific Research with Integrity, On 22/2/2021, 10:00AM to 11:30 AM (IST).
Nano Technology- Novel Strategies in Life Science Research 24/2/2021, 10:00AM to 11:30 AM.
- Keynote speaker, International Women's day, Parmakalyani College, TamilNadu, India, March 8, 2021.
- Invited speaker for Nirma University, Institute of Pharmacy, March 23&24, Allahabad, India, 2021.

3. **Journal Reviewer for** BMC Public Health Biomed Central, Journal of Experimental Cell Research and Journal of Colloid and interface Science

4. Grant Reviewer - CPRIT High Risk/High Impact

5. Patent Awarded -PATENT: UTSC: 1013USP1rHDL PARTICLES FOR DELIVERY OF NUCLEIC ACIDS, A. K.Sood, A. G. Lacko, Gabriel Lopez- L. S. Mangala, W. J. McConathy, L. Prokai, and M.P. Nair.

6. Publications:

Selected Peer reviewed Publications – Total - 31

Jamie Y. Choe, Maya Nair , Riyaz Basha ,Byung-Jin Kim , Harlan P. Jones, Defining Early Life Stress as a Precursor for Autoimmune Disease, *Critical Reviews™ in Immunology*, pages 329-342, 2020, DOI: 10.1615/CritRevImmunol.2020, 033244.

Vishwanatha, J.K. Basha R., Nair M., and Jones, H.P. An Institutional Coordinated Plan for Effective Partnerships to Achieve Health Equity and Biomedical Workforce Diversity. NIH Special issue, *Ethnicity and Disease*, February 2019.

Krishna Patel, Sohail Siraj, Chloe Smith, Maya Nair, Jamboor K. Vishwanatha, & Riyaz Basha, Pancreatic Cancer: An Emphasis on Current Perspectives in Immunotherapy, *Critical Reviews™ in Oncogenesis*, 24(2):105–118 (2019) 0893-9675/19/\$35.00 © 2019 Begell House, Inc. www.begellhouse.com.

Chandra A, Pius C, Nabeel M, Nair M, Vishwanatha JK, Ahmad S, Basha R. Ovarian cancer: Current status and strategies for improving therapeutic outcomes, *Cancer Med*. 2019 Nov;8(16):7018-7031. doi: 10.1002/cam4.2560. Epub 2019 Sep 27.

Nirupama Sabnis, Maya Nair, Mervyn Israel, Walter J McConathy, Andras G Lacko Enhanced solubility and functionality of valrubicin (AD-32) against cancer cells upon encapsulation into biocompatible nanoparticles *Int J Nanomedicine*. 2012; 7: 975–983. Published online 2012 February 22.

Shahzad MM, Mangala LS, Han HD, Lu C, Bottsford-Miller J, Nishimura M, Mora EM, Lee JW, Stone RL, Pecot CV, Thanappapasr D, Roh JW, Gaur P, Nair MP, Park YY, Sabnis N, Deavers MT, Lee JS, Ellis LM, Lopez-Berestein G, McConathy WJ, Prokai L, Lacko AG, Sood AK. Targeted delivery of small interfering RNA using reconstituted high-density lipoprotein nanoparticles., *Neoplasia*. 2011, Apr;13(4):309-19.

Mooberry LK, Nair M, Paranjape S, McConathy WJ, Lacko AG., Receptor mediated uptake of paclitaxel From a synthetic high density lipoprotein nanocarrier, *J Drug Target*. 2010 Jan; 18(1): 53-8.

Sarkar P, Bharill S, Gryczynski I, Gryczynski Z, Nair MP, Lacko AG.. Binding of 8-anilino-1 naphthalenesulfonate to lecithin:cholesterol acyltransferase studied by fluorescence techniques. *J PhotochemPhotobiol B*.. July24,2008; 92: 19-23.

McConathy WJ, Nair MP, Paranjape S, Mooberry L, Lacko AG. . Evaluation of synthetic/reconstituted high- density lipoproteins as delivery vehicles for paclitaxel.. *Anti-cancer drugs*. 2008 Feb ; 19. (2): 183-8.

Singhal SS, Singhal J, Nair MP, Lacko AG, Awasthi YC, Awasthi S., Doxorubicin transport by RALBP1 and ABCG2 in lung and breast cancer. *Int J Oncol*. Mar;30(3):717-25., 2007

Reshetnyak Y, Tchadre KT, Nair MP, Pritchard PH, Lacko AG. Structural differences between wild-type and fish eye disease mutant of lecithin:cholesterol acyltransferase., *J Biomol Struct Dyn*. 24(1):75-82, 2006.

Lacko AG, Nair M, Paranjape S, Mooberry L, McConathy WJ. Trojan Horse Meets Magic Bullet to Spawn a Novel, Highly Effective Drug Delivery Model. *Chemotherapy*. 2006 May 10;52(4):171-173

Lane SB, Tchadre KT, Nair MP, Thigpen AE, Lacko AG. Characterization of lecithin:cholesterol acyltransferase expressed in a human lung cell line., *Protein Expr Purif* Aug;36(2):157-64, (2004).

Andras G. Lacko, Maya Nair, Sulabha Paranjape, Shemedia Johnson and Walter J. McConathy. Novel delivery system for targeted cancer chemotherapy. In *Stem Cell and Targeted Therapy*; K.A. Dickey and A. Keating Eds. Garden Jennings Pubs (2003).

Andras G. Lacko, Maya Nair, Sulabha Paranjape, Shemedia Johnson and Walter J. McConathy. High density lipoprotein complexes as delivery vehicles for anticancer drugs, *Anticancer Research* 22: 2045 – 2050 (2002)

Maya Nair, B.J. Kudchodkar, P.H. Pritchard and A.G. Lacko. Purification of recombinant Lecithin:cholesterol acyltransferase. *Protein Expr. and Purif*. 10: 38-41 (1997).

M. P. Nair and K.W. Harris. Characterization of The Human Erythropoietin Receptor Extracellular Domain Expressed in Yeast. *Blood*, 86: 10, 18a, (1995).

Selected Book chapters and monographs (total of 6)

Andras G. Lacko, Maya Nair and Walter J. McConathy. Lipoproteins as drug delivery vehicles., *Current Drug Delivery* , Chapter 37 (2006).

Lacko AG, Nair M, Paranjape S, Mooberry L, McConathy WJ. Trojan Horse Meets Magic Bullet to Spawn a Novel, Highly Effective Drug Delivery Model. *Chemotherapy*. 2006 May 10;52(4):171-173

Selected Published Abstracts (Total of 27)

Abstracts:

Zara Soomro, Shane Fernando and Maya Nair, Evaluate the Association of the HPV Vaccination and Cervical Cancer Incidence Among Various Race and Ethnicities, UNTHSC RAD 2020, Fort Worth Texas.

Helen Tolulope Orimoloye Rusty Reeves and Maya Nair, Biosafety measures to address challenges in expanding an anatomical laboratory, UNTHSC RAD 2020, Fort Worth, Texas.

Maya Nair, and Jamboor Vishwanatha, Promoting Diversity in Research Training of Health Professional Students (PDRT)- has been accepted for presentation as a poster at the 12th Conference on Understanding Interventions that Broaden Participation in Science Careers in San Antonio, Texas March 13-15, 2020.

Zara Soomro, Shane Fernando and Maya Nair, Evaluate the Association of the HPV Vaccination and Cervical Cancer Incidence Among Various Race and Ethnicities, UNTHSC RAD 2020, Fort Worth, Texas.

Helen Tolulope Orimoloye Rusty Reeves and Maya Nair, Biosafety measures to address challenges in expanding an anatomical laboratory, UNTHSC RAD 2020, Fort Worth, Texas.

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Maya Nair, Riyaz Basha, Ashwin Chandra, Helen Tolulope Orimoloye, Investigate the role of precision medicine in women's health and its utilization, A review focused on factors affecting participation and utilization of information among underrepresented minority women in the United States., Abstract book online, The 13th Annual Texas Conference on Health Disparities, Diversity in the Era of Precision Medicine is scheduled for June 7-8, 2018 at UNT Health Science Center, 3500 Camp Bowie Blvd., Fort Worth, TX 76107.

Maya Nair, Andras Lacko, and Patricia Gwartz, Team Based Learning Exercise as an effective tool to teach complex biochemical concepts to a diverse population of Post-baccalaureate Premedical Program Students. 16th Annual TBLC Meeting , Albuquerque, New Mexico, March 3-5, 2016.

Uloma Igara Uche and Maya Nair, Department of Environmental and Occupational Health Department of Safety' University of North Texas Health Science Center , Fort Worth, TX 76107A PROPOSED MODEL FOR POST-APPROVAL MONITORING (PAM) OF INSTITUTIONAL BIOSAFETY PROTOCOL IN AN ACADEMIC ENVIRONMENT, RAD (2013)

Uloma Igara Uche and Maya Nair, Department of Environmental and Occupational Health Department of Safety' University of North Texas Health Science Center , Fort Worth, TX 76107A PROPOSED MODEL FOR POST-APPROVAL MONITORING (PAM) OF INSTITUTIONAL BIOSAFETY PROTOCOL IN AN ACADEMIC ENVIRONMENT, Annual conference AICHE (2013)

Lacko AG , Nair, M. Paranjape S, Mooberry L, McConathy, WJ, Targeted drug delivery via reconstituted high density lipoproteins (rHDL). Presented at the World Congress of dosing of anti-infectives and anti-neoplastic agents. (Dosing of Magic Bullets). Held to Commemorate the 150th anniversary of the birth of Paul Ehrlich, Nürnberg Germany, September 2004.

Maya P. Nair, Walter J. McConathy, Andras G. Lacko, Courtney Schneider, Satvika Ananthanarayan Michael Lu, and Ashwin Chandra, "HOPE FOR HEALTH", PREVENTION OF CHILDHOOD OBESITY. Research Appreciation Day, University of North Texas Health Science Center, Fort Worth, TX. 2004.

Andras G. Lacko, Maya Nair, Sulabha Paranjape, Linda Mooberry and Walter J. McConathy. Advanced Drug Delivery system for Breast cancer chemotherapy Department of Defense, Congressionally Directed Medical Research Program "ERA of Hope" Breast Cancer Research Review, Philadelphia Pennsylvania, 200