

## PRAKASH NAIR, PhD

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### Accomplishments

- Effectively managed the Natural & Physical Science Department as an Academic Chair for six years (2008-2014) at Northwest Vista College, which included Astronomy, Biology, Chemistry, Engineering, Geology, and Physics disciplines. Under my leadership the department grew in number of faculty (full-time and adjuncts), sections offered, student enrollment, classroom rigor, retention and success, and average class size.
- Managed class scheduling, faculty hiring, classroom management, and budget for all the disciplines within the Science department.
- Served as ombudsman to resolve student and faculty issues.
- Actively served on the NVC and District Curriculum review teams and assisted in curriculum development for all courses.
- Chemistry discipline coordinator at NVC from Fall 2014 – Summer 2017 and managed section offerings, class scheduling, adjunct faculty hiring, mentoring, and course assignments.
- Grant Program director for the Department of Education funded PLUS+STEM grant for 5 years (2021-2026) aimed at narrowing the prevailing disparities in STEM higher education.
- Co-PI on three grants aimed at providing undergraduate research opportunities and improving student transfers to Baccalaureate Programs
  - NSF funded LSAMP-CIMA (2014-2016)
  - NIH funded “Bridges to Biomedicine” in partnership with Texas State University (2013-2018)
  - USDA funded “Food Safety Agro-terrorism training” in partnership with Texas State University (2011-2016)
- Institutional Review Board Chair (since Fall 2018)
- Coordinated the Science Conference at NVC in April 2015, an event attended by >175 student participants and 11 university / business partners.
- Worked with College committees to formulate and maintain academic standards set forth by Alamo College district, THECB and SACS-COC.
- Worked on the SACS Student Complaint team to prepare the response for 2015 Reaffirmation process.
- Experienced in Banner Systems (Navigator, Scheduler, and Finance).
- Has been actively involved in College and District initiatives and has served on diverse committees.
- Trained in professional skills needed for effective leadership; including PDCA, 7 Habits for Senior Leaders, 4 Disciplines of Execution, Critical communication, Ethics
- Participated in several Professional Development workshops.
- Experienced Chemistry Professor - can teach all Chemistry courses in Introductory, General and Organic Chemistry.
- Member of the Texas Higher Education Coordinating Board – Chemistry Tuning Council (2011-2013).
- Chemistry Section Chair, Texas Community College Teachers Association Annual Convention, San Antonio, TX (2014).
- Coordinated the Chemistry Science Bowl regional competition at Texas A & M San Antonio, TX (2015).
- Coordinated the Biotechnology program at NVC in 2007-2008 and helped with class scheduling, adjunct faculty hiring and course assignments.

## Experience

- **Professor of Chemistry**, 08/2018 to Current  
Northwest Vista College, San Antonio, TX
  - Teach lecture and laboratory courses in General Chemistry-1&2, Organic Chemistry-1&2
  - Participate in discipline-related and department-related committees for student learning outcomes, textbook adoptions, and curriculum realignment
- **Associate Professor of Chemistry**, 08/2013 to 07/2018  
Northwest Vista College, San Antonio, TX
  - Taught lecture and laboratory courses in General Chemistry, Organic Chemistry-1 & 2.
  - Participated in discipline-related committees for student learning outcomes, textbook adoptions, and curriculum realignment.
  - **Chemistry discipline coordinator** (Fall 2014 - Summer 2017).
- **Academic Chair, Natural and Physical Sciences**, 08/2008 to 07/2014  
Northwest Vista College, San Antonio, TX
  - Managed a group of 23 full-time faculty, 45-50 part-time faculty, 4 full-time staff, and 5 part-time staff members in the department, which housed Astronomy, Biology, Chemistry, Engineering, Geology, and Physics disciplines.
  - Worked with discipline coordinators for effective class scheduling, classroom management, and faculty assignments.
  - Routinely met with discipline coordinators to share ideas and aid to achieve effective classroom instructions.
  - Conducted regular faculty meetings to foster good communication and exchange ideas.
  - Coordinated the formulation and maintenance of academic standards for the science programs.
  - Represented the college and the district through travel and community involvement, as well as extracurricular activities (conferences, convocation, and honor's ceremony).
  - Worked with discipline coordinators to increase the number of sections offered and hire qualified adjunct faculty members to meet the needs of the discipline.
  - Interviewed and recommended hiring of new personnel; reviewed and approved transcripts for faculty board approvals.
  - Assisted the registrar in enrollment management.
  - Continued teaching classes and helped as substitute instructor when needed.
  - Worked with students, staff, and faculty members to implement policies and procedures set forth by NVC and Alamo Colleges.
  - Served on several committees at the college and district levels.
  - Active member of the curriculum developments team at district and college.
  - Active member of the AS degree program committee.
  - Worked with Student Services and other departments within college to address and resolve student issues.
  - Acted as ombudsman for faculty and students in multidisciplinary clusters.
  - Supervised maintenance of inventory (office supplies, labs, etc.), cataloguing and distribution of specific technical equipment (laptops, computer carts).
  - Help to lead faculty in college initiatives.
  - Reviewed and worked with administrative staff to ensure faculty pay and benefits paperwork was accurate.
  - Maintained records, inventories, and operating budget for maximum efficiency and accountability. Engaged in ongoing purchasing and budgeting activities.
  - Worked with the faculty and staff to develop the budget for the science departments every year.

- **Assistant Professor of Chemistry**, 08/2009 to 08/2013  
Northwest Vista College, San Antonio, TX
  - Taught lecture and laboratory courses in Organic Chemistry-1 & 2
  - Received good evaluations on classroom observations by peers and the end of course surveys by students.
  - Participated in discipline-related committees for student learning outcomes, textbook adoptions, and curriculum realignment.
- **Instructor – Chemistry**, 08/2006 to 08/2009  
Northwest Vista College, San Antonio, TX
  - Taught lecture and laboratory courses in Introductory Chemistry-1 & 2, General Chemistry-1 & 2, Organic Chemistry-1 & 2.
  - Received good evaluations on classroom observations by peers and the end of course surveys by students.
  - Participated in discipline-related committees for student learning outcomes, textbook adoptions, and curriculum realignment.
- **Adjunct Instructor – Chemistry**, 08/2003 to 08/2006  
Alamo Community College District, San Antonio, TX
  - Taught Chemistry courses at Northwest Vista College and San Antonio College.
  - Taught lecture and laboratory courses in Intro Chemistry-1 & 2, and Gen. Chemistry-1 & 2.
- **Assistant Professor (Research)**, 07/1998 to 07/2006  
University of Texas Health Science Center at San Antonio, San Antonio, TX
  - Specialized in the areas of molecular and cancer biology.
  - Worked in Departments of Surgery, Physiology, and Children's Cancer Res. Inst.
  - Experienced in apoptosis and signaling mechanism research in areas of pancreatic cancer, aging, and neuroblastoma childhood cancer.
- **Post-doctoral Scholar**, 06/1997 to 06/1998  
University of Kentucky, Lexington, KY
  - Trained in the area of neuronal apoptosis aimed at understanding gene regulation and molecular mechanisms associated with ceramide-mediated inhibition of apoptosis of sympathetic neurons.

## Grants

- **Program Director for the DoE-funded PLUS+STEM** grant to Northwest Vista College (Co-PIs – Dr. Claudia Verdin and Dr. Thomas Pressly) – since Fall 2021
  - Narrow prevailing disparities in STEM higher education with respect to pursuit of STEM majors, retention, persistence, success, and degree completion among Hispanics, low-income, and other underrepresented populations
  - Research institution collaborators – UTSA, TAMUSA, UIW, St. Mary's University
  - Industry partners - Terracon
- **Co-PI for the NSF-funded LSAMP-CIMA** grant to St. Philips college (PI – Dr. Maureen Cartledge) with the other four Alamo Colleges as partnering institutions (2013 – 2015)
  - Provides paid undergraduate research opportunities at premier 4-year institutions for Alamo College students during 10-weeks of summer.
  - Research Institution collaborators – UTSA and Texas A & M San Antonio.
- **Co-PI for the NIH-funded Bridges to Biomedicine** grant to Texas State University (PI – Dr. Ron Walters) with NVC and SAC as community college partners (2013- 2017)

- Provides year-round mentoring, advising, and paid undergraduate research opportunities at premier research institutions for NVC and SAC students.
  - Research institution partners – Texas State, Texas Biomed Institute, UTSA, UTHSCSA
  - Students get research training at Texas Biomed Institute / UTSA / UTHSCSA in Fall and Spring semester and at Texas State University in the Summer.
- **Co-PI on Department of Agriculture funded Food Safety Agro-terrorism training** grant with Texas State University (PI – Dr. Douglas Morrish) (2011- 2016)
    - Provided scholarships for NVC students
    - Provided paid summer-undergraduate research internships at Texas State University and USDA labs across the nation

### **Institutional Review Board Chair – since Fall 2018**

- Responsible for review and approval of all research involving human subjects at NVC and ensure compliance with applicable federal regulations

### **Education**

- **Ph.D.: Toxicology, 1997**  
University of Kentucky, Lexington, KY, USA  
PhD dissertation research focused on regulation of the Early Growth Response-1 (EGR-1) gene following thapsigargin-induced apoptosis in melanoma and prostate cancer cells.
- **Master of Science: Chemistry, 1993**  
University of Kentucky, Lexington, KY, USA  
Master's Thesis - Applications of Near Infra-Red Spectroscopy as a non-destructive and non-invasive technique.
- **Bachelor of Science: Chemical Technology, 1989**  
University of Mumbai – Dept. of Chemical Technology, Mumbai, Maharashtra, INDIA  
Specialization in Technology of Intermediates and Dyes
- **Bachelor of Science: Chemistry, 1986**  
University of Mumbai, Mumbai, Maharashtra, INDIA  
Major – Chemistry; Minor – Physics and Math

### **Publications**

- P. Nair, K. DePreter, J. Vandesompele, F. Speleman, and R. L. Stallings. Aberrant Splicing the PTPRD gene mimics microdeletions identified at this locus in neuroblastomas. *Genes Chromosomes & Cancer* 47: 197-202 (2008).
- P. Nair, L. McArdle, J. Cornell, S. L. Cohn, and R. L. Stallings. High-resolution analysis of 3p deletion in neuroblastoma and differential methylation of the SEMA3b tumor suppressor gene. *Cancer Genetics and Cytogenetics* 174: 100-110 (2007).
- P. Nair, H. Pan, R. L. Stallings, and S. J. Gao. Recurrent genomic imbalances in primary effusion lymphomas. *Cancer Genetics and Cytogenetics* 171; 119-121 (2006).
- R. L. Stallings, P. Nair, J. M. Maris, D. Catchpoole, M. McDermott, A. O'Meara, and F. Breatnach. High Resolution Analysis of Chromosomal Breakpoints and Genomic Instability Identifies PTPRD as a Candidate Tumor Suppressor Gene in Neuroblastoma. *Cancer Research* 66: 3673-3680 (2006).
- R. R. Selzer, T. A. Richmond, N. J. Pofahl, R. D. Green, P. Nair, F. Calderon, A. R. Brothman, and R. L. Stallings. Analysis of chromosome breakpoints in neuroblastoma at sub-kilobase resolution using fine-tiling oligonucleotide array CGH. *Genes Chromosomes & Cancer* 44: 305-19 (2005).

- P. Nair, T. Golden, and S. Melov. Microarray Workshop on Aging. Mechanisms of Ageing and Development. Mechanism of Ageing and Development 124: 133-138 (2003).
- P. Nair, D. DeArmond, M. E. Adamo, W. E. Strodel, and J. W. Freeman. Aberrant expression and activation of the insulin-like growth factor-1 receptor (IGF-1R) is mediated by an induction of IGF-1R promoter activity and stabilization of IGF-1R mRNA and contributes to growth factor independence and increased survival of the pancreatic cancer cell line MIA PaCa-2. Oncogene 20:8203-8214 (2001).
- P. Nair, S. Tammariello, and S. Estus. Ceramide selectively inhibits apoptosis-associated events in NGF-deprived sympathetic neurons. Cell Death and Differentiation. 7:207-214 (2000).
- M. Y. Aksenov, H. M. Tucker, P. Nair, M. V. Aksenova, D. A. Butterfield, S. Estus, and W. R. Markesbery. The expression of several mitochondria and nuclear genes encoding the subunits of electron transport chain enzyme complexes, cytochrome C oxidase and NADH dehydrogenase, in different brain regions in Alzheimer's disease. Neurochemical Research 24: 767-774 (1999).
- M. Y. Aksenov, H. M. Tucker, P. Nair, M. V. Aksenova, D. A. Butterfield, S. Estus, and W. R. Markesbery. The expression of key oxidative stress-handling genes in different brain regions in Alzheimer's disease. Journal of Molecular Neuroscience 11:151-164 (1998)
- P. Nair, S. F. Sells, S. Muthukkumar, S. –S. Han, V. P. Sukhatme, and V. M. Rangnekar. EGR-1-dependent apoptosis is mediated by p53. Journal of Biological Chemistry 272:20131-20138 (1997).
- S. F. Sells, S. –S. Han, S. Muthukkumar, N. G. Maddhiwar, R. Johstone, E. Boghaert, D. Gillis, G. Liu, P. Nair, S. Monnig, P. Collini, M. P. Mattson, V. P. Sukhatme, S. Zimmer, D. P. Wood, Jr., J. W. McRoberts, Y. Shi, and V. M. Rangnekar. Expression and function of the leucine zipper protein Par-4 in apoptosis. Molecular and Cellular Biology 17:3823-3832 (1997).
- S. Muthukkumar, P. Nair, S. F. Sells, N. G. Maddhiwar, R. Jacob, and V. M. Rangnekar. Role of EGR-1 in Thapsigargin-inducible apoptosis in the melanoma cell line A375-C6. Molecular and Cellular Biology 15:6262-6272 (1995).
- A. Krishnan, P. Nair, and D. Jones. Isolation, cloning and characterization of a new chitinase stored in active form in a chitin-lined venom reservoir. Journal of Biological Chemistry 269:20971-20976 (1994).
- P. Nair and R. A. Lodder. Near-IR identification of woods for restoration of historic buildings and furniture. Applied Spectroscopy 47:287-291 (1993).

## Presentations

- Science Conference at NVC – April 2007 and April 2008.
- A career at primarily undergraduate institution”, Post-doctoral Career Workshop at UTHSCSA, San Antonio, TX, July 2009.
- “Teaching careers”, Post-doctoral workshop at UTHSCSA, June 2011 and June 2013.
- Careers in Science and Engineering”, Prefreshman Engineering Program (PREP) Speaker at NVC, 2011-2014.
- Careers in Science and Engineering”, Prefreshman Engineering Program (PREP) Speaker at San Antonio College and Palo Alto College, June 2013.
- Gender Equity in Math and Science (GEMS) students at NVC, June 2011.
- Graduate Student Association at UTHSCSA, Summer 2011.
- Chemistry Club at Johnson High School, San Antonio, December 2011.
- Chemistry Merit Badge counselor, Alamo Area Council Merit Badge University at NVC, 2011-2015.
- “Texas Statewide Competencies” – Member of discussion panel, Texas Community College Teachers Association Annual Convention, Houston, TX, February 2013.

- Coordinated two “Fun with Chemistry” hands-on sessions during Employee Development Day at NVC in October 2015.

## **References**

- Roberto Gonzales, PhD, Professor of Biology, Northwest Vista College, San Antonio, TX 78251 (rgonzalez5@alamo.edu; 210-486-4372)
- Simon van Dijk, PhD, Professor of Chemistry, Northwest Vista College, San Antonio, TX 78251 (svandijk@alamo.edu; 210-486-4843)
- Robin Sandberg, Dean of Student Success, Northwest Vista College, San Antonio, TX 78251 (rsandberg@alamo.edu; 210-486-4134)