

Carole Flores

Center for Innovations in Medicine.
The Biodesign Institute at ASU, PO Box 875901
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OBJECTIVE

I thrive when able to utilize the knowledge, experience and skills that I have gained in secondary science education, university-level scientific research and research administration over the last 20 years. I have learned to successfully manage complex facets of research, interpersonal and inter-organizational communications, and collaboration and facilitation in the laboratory environment. I enjoy people and I enjoy science; especially the intersection of the two.

REFERENCES

Neal Woodbury, PhD	Co-Director of the Center for Innovations in Medicine, Prof in Dept. of Chemistry & Biochemistry and Center for Single Molecule BioPhysics (SMB), Biodesign Institute at ASU, 480.965.3294, Neal.Woodbury@asu.edu
Su Lin, PhD	Research Professor, SMB, Biodesign Institute at ASU, 480.727.0391, SLin@asu.edu
Hao Yan, PhD	Professor of Chem & Biochem, SMB, Biodesign Institute at ASU, 480.727.8570, Hao.Yan@asu.edu
Stuart Lindsay, PhD	Director, SMB, Biodesign Institute at ASU, Prof of Physics, 480.965.4691, STUART.LINDSAY@asu.edu
Mark Mauro	Principal, J.O. Combs Middle School, 480.987.3510
Dana Saar	Fountain Hills Unified School District Board Member, dsaar@susieanddana.com
Kevin O'Dell	Science Teacher, Higley Unified School District, 480.279.8148
Robert Hunkler	Director, Professional Relations at IMS Health, rhunkler@us.imshealth.com

PROFESSIONAL EXPERIENCE

Senior Coordinator

2010 - Present

Biodesign Institute at Arizona State University - Tempe, AZ

The BON Center was dissolved at the end of FY10 and the Woodbury Lab merged with the Center for Single Molecule BioPhysics. My direct supervisor, Neal Woodbury, was elevated to Chief Scientific Officer of the Biodesign Institute. At that time, I began to assist him in this capacity as well as our new Center Director, Stuart Lindsay; monitoring accounts related to his Sequencing by Recognition program. I continued to manage the Woodbury Lab and continued with the duties outlined in the previous description. Our group then became affiliated with the Center for Innovations in Medicine in January of 2011 as Dr. Woodbury decided to co-direct this center with Stephen Johnston. My duties are evolving as we transition our group.

- Oversee budgets for Neal Woodbury, Ph.D. totaling approximately \$550K per year.
- Prepare reports and documents used for Opportunity Development events and grant proposals.
- Oversee budgets for Stuart Lindsay, Ph.D. (Center Director), totaling approximately \$1.5 million per year.

Center Manager, CENTER FOR BIOOPTICAL NANOTECHNOLOGY

2007 – 2010

Biodesign Institute at Arizona State University - Tempe, AZ

A use-inspired multidisciplinary research organization, this institute was established to solve complex problems related to human health and the environment. My responsibilities as Center Manager include the following pivotal functions:

- Oversee budgets within the BON Center totaling approximately \$1million per year and encompassing an average of twelve local and sponsored accounts; create, update and analyze budget spreadsheets, make recommendations regarding cost consolidation for research activities in the Center; advise and execute appropriate accounting actions, carry out purchasing for assigned research groups, reconcile expenses.
- Coordinate Human Resource activities for a 35+ person research group including postings, interviews, security access, payroll distributions, evaluations, terminations.
- Edit manuscripts and other published writing projects; especially for non-native English-speakers.
- Coordinate, compile and edit regular progress reports for sponsoring agencies.
- Liaise with the Office of Sponsored Project Administration regarding grant preparation, post-award modifications, Materials Transfer Agreements, consultant agreements.
- Provide an overall support framework for research teams; connect researchers with resources, coordinate meetings when requested, facilitate researchers administratively and in the laboratory.
- Provide technical expertise and consulting to undergraduate and high school interns when needed.
- Interview, hire and supervise administrative and laboratory assistants.
- Manage laboratory operations for the Center's research groups including equipment installation and repair, laboratory organization and safety, and chemical inventories.
- Establish, implement and support standard, safe operating procedures consistent with OSHA-approved Chemical Hygiene Plan; liaise with ASU and Biodesign Environmental Health and Safety organizations.
- Produce, coordinate, compile, edit, and submit biosafety protocols to the Institutional Biosafety Committee.

- Coordinate team-building and administrative retreats and corresponding agendas.
- Research and compose letters of recommendation and other correspondence on behalf of Dr. Woodbury.
- Coordinate schedule and activities for participants in our active summer high school student and teacher intern program.
- Provide overall administrative support to all Center personnel including security access, IT requisitions, website maintenance, travel arrangements, scheduling, reimbursements, contact lists, etc.

Key Accomplishments

- Developed reporting processes and supporting spreadsheets to provide a real-time metric of the state of accounts, which included yearly breakdowns for each grant as well as yearly and comprehensive projections.
- Co-managed a large-scale Interdisciplinary Graduate Education Research Training grant as well as assisted with the final account and cost-sharing reconciliation processes.
- Served as Move Coordinator, orchestrating the packing and moving of the Woodbury Lab from the Department of Chemistry to the Biodesign Institute as well as the organization and set-up of the new laboratory.

Research Specialist, CENTER FOR BIOOPTICAL NANOTECHNOLOGY Biodesign Institute at Arizona State University - Tempe, AZ

2005 – 2007

- Planned and executed research projects at an independent level, with latitude for creativity and responsibility for the development and optimization of advanced procedures as well as associated data reduction and analysis.
- Supervised undergraduate researchers.
- Assisted with purchasing, laboratory management, and grant preparation for Woodbury Lab.
- Project: Create a sensor for monitoring DNA/nucleosome interactions as the packing of DNA within these structures affects gene accessibility and has been implicated in the switching on and off of breast cancer and other genes.
- Project: Create a microarray-based assay using aptamers (short DNA sequences) in hopes of eliciting algorithms that permit high-throughput screening of potential sensors.

Research Specialist, DEPARTMENT OF CHEMISTRY & BIOCHEMISTRY Arizona State University, Tempe, AZ

2001 - 2005

- Planned and executed research projects at an independent level, with latitude for creativity and responsibility for the development and optimization of advanced procedures as well as associated data reduction and analysis.
- Supervised undergraduate researchers and facilitated a 2-day biotechnology workshop at Sandpiper Elementary School
- Assisted with purchasing and laboratory management for Woodbury Lab.
- Projects: Directed evolution experiments selecting for lifetime variants of the Green Fluorescent Protein as well as for B-side electron transfer mutants in photosynthetic reaction centers.

Science Teacher , FOUNTAIN HILLS HIGH SCHOOL Fountain Hills, AZ

1995 – 2001

- Subject Areas: 8th Grade Science, Physical Science, Regular & Honors Biology, Anatomy & Physiology, Biotechnology.
- Led extra-curricular activities including Students Against Destructive Decisions and the Peer Mentoring group.
- Actively participated in numerous committees including Grant-Writing, Site-Based Council, North Central School Improvement.
 - Wrote and received a \$15,000 grant from the Arizona Community Foundation to promote science beyond the classroom
 - Wrote and received a grant from NASA to purchase a weather satellite
- Taught peers, through the ThinkTech program, to utilize technology in their classrooms.

Key Accomplishments

- Created and directed a new Biotechnology program, called DesertLab, based on the CityLab Program at Boston University School of Medicine.
 - Designed a year-long inquiry course incorporating the CityLab curriculum
 - Wrote and received grants totaling \$38,000 to set-up and sustain the program for 5 years
- Completed funded internships in the laboratory of Dr. John A. McDonald at Mayo Clinic Scottsdale, I participated in research pertaining to hyaluronic acid expression in mouse heart cells as well as integrin deficiencies in mouse skin basement membranes and lung tissues, afternoons during school-years and full-time during summers. These opportunities were funded by the American Association for Clinical Investigation and the American Lung Association.

Research Technician, DEPARTMENTS OF CHEMISTRY & PLANT SCIENCES University of Arizona, Tucson, AZ

1994

- Project: Characterization of beta-galacturonase expression in tomato fruit.
- Transgenic plant culture and greenhouse maintenance.

EDUCATION

Boston University, Master of Arts in Teaching (1995), GPA: 3.77. *Secondary Science Education*.

Participated in the *Frontiers in Modern Biology* teacher research internship program, in the laboratory of Robert Hausman, PhD.

University of Arizona, Bachelor of Science (1993), GPA: 3.5. *Molecular & Cellular Biology*.

Participated in *Undergraduate Biological Research Program* in the laboratories of Elizabeth Vierling, PhD and Dean DellaPenna, PhD.

Phoenix College (1991), Phoenix, AZ. *Presidential Scholarship*.

NASA and Florida A&M University (1991), Cape Canaveral, FL. *Space Life Sciences Training Program*.

AFFILIATIONS

Biodesign/ASU United Way Campaign Organizer (2009)

Biodesign Graduate Student Organization, Advisor (2009, 2010)

'See ASU' Biodesign Institute Volunteer (2006, 2008)

American Assn for the Advancement of Science (2000-2002)

Succession Study of McDowell Mountain Park (1996 – 1998)

Phoenix College Science Club, Secretary (1989 – 1991)

Montessori Day School Science Club Founder & Facilitator (2010)

Biodesign Wellness Challenge, Team (2011)

ASUKI Step Research Study, Team Captain (2009)

ASU EH&S Compliance Officer (2005- present)

Biodesign Internship Selection Committee (2006, 2009, 2010)

Maricopa Cty Coop Ext Master Gardener Progr (2002)

National Association of Biology Teachers (1997 – 1999)

Biodesign Institute Summer High School Internship Program

Coordinator (2010)

CERTIFICATIONS

ASU Office. of the VP for Research & Economic Affairs, Research Administration Certificate Program

(Spring, 2007)

Entering Mentoring

(November 3, 2010)

AWARDS

- Received Sun Awards (ASU recognition program) from colleagues for being attentive, efficient and positive as well as for assisting with the compilation of a major grant proposal.
- Received the Silver Falcon Outstanding Teacher Award from FHHS senior class (1998)
- Received America West/Phoenix Suns Outstanding Educator Award (1997)

PUBLICATIONS

Exploring the sequence space of a DNA aptamer using micro arrays. Katilius E, **Flores C**, and Woodbury NW. *Nucleic Acids Res.* 2007; 35(22): 7626-35.

Development and characterization of green fluorescent protein mutants with altered lifetimes. Scruggs AW, **Flores CL**, Wachter R, Woodbury NW. *Biochemistry.* 2005 Oct 11;44(40):13377-84.

SKILLS

Computer: SuperReport/MyReports/WebReports (provide account transaction reports, ASU) • Microsoft Office (Word, Excel and PowerPoint) • Microsoft Outlook • ORACLE/PeopleSoft (HR database, data retrieval not entry) • Laboratory Software (ImagePro, Origin, web-based software for DNA & protein sequence analysis including Pubmed/Entrez BLAST and ORF Finder, Jellyfish, Webcutter) • Web-based Journal Search Engines • EndNote (reference application) • Grant Submission and Reporting Sites (NSF FastLane, DOE site) • SharePoint (centralized document repository) • Advantage (primary accounting system, ASU) • COEUS (grant tracking, ASU)

Language: Speak, read and write Spanish at a basic level

Molecular Biology & Biochemistry: Polymerase Chain Reaction • Nucleic Acid and Protein Expression, Extraction, Purification and Quantification • Nucleic Acid and Protein Electrophoresis and Imaging • Bacterial and Tissue Cell Culture (heart, retinal, skin) • Histology • Microscopy • Dissection • Cloning and Restriction Analysis • Enzyme Linked Immunosorbent Assay

General: Highly-organized and energetic professional with a broad background in dealing with the full spectrum of laboratory research operations and administration • Enthusiastic and goal-oriented with 20 years of experience in research and educational environments utilizing in-depth knowledge of laboratory management, office administration and customer relations • Committed to maintaining a high level of performance in accomplishing multiple tasks to improve operations, facilitate clients (researchers, faculty, students, sponsors) and successfully achieve organizational goals and objectives • Proven record of successful completion of projects through coordinating team efforts and building positive rapport with colleagues • Excellent leadership, communication, organizational, time management, intuitive and analytical skills • Thrive in both independent and group work environments • Innovative and self-motivated team player and builder; at ease in high-stress, fast-paced environments with numerous and challenging tasks