Susan L. Elrod, Ph.D.

Chancellor Indiana University South Bend

EDUCATION

1995 Ph.D., *Genetics*, University of California, Davis (Elizabeth O. Shuster, advisor) Dissertation: *Mutational Analysis of CDC36 in Saccharomyces cerevisiae*1986 B.S., *Biological Sciences*; Minor, *Chemistry*, California State University, Chico Honors Research: *Ames Testing of Regional Farm Soils* President, Associated Students Inc. (1985-6) Board of Directors Member, Associated Students Inc. (1984-5)

OVERVIEW

STEM and Higher Education Leadership

- Principal Investigator, *Building Leadership Capacity* project (National Science Foundation); co-PI *Refining Resources in Leadership Teams for Institutional Transformation* (The Bill & Melinda Gates Foundation, 2018-2022; Sloan Foundation, 2022-present) resulting in a <u>Change Leadership Toolkit</u> and associated curriculum (pilot offering September 2023 – February 2024).
- AAAS (American Association for the Advancement of Science) Fellow (Elected in 2019)
- National Academies of Sciences, Engineering and Medicine <u>Developing Indicators for STEM</u> <u>Education</u> consensus study committee (2018)
- Co-founder, Accelerating Systemic Change Network (<u>ASCN</u>) (2016); Co-leader, inaugural ASCN Systemic Change Institutes for Scaling & Sustaining Institutional Change (2017, 2018)
- Co-founder, <u>Gordon Research Conference</u> on *Undergraduate Biology Education Research* (2015)
- Founding member, *Coalition for Reform of Undergraduate STEM Education (CRUSE)*, a coalition comprised of higher education national association leaders (2012)
- Selected advisory roles:
 - o Business Higher Education Forum (BHEF) NSF IUSE grant development
 - o <u>TEval</u> (Transforming Higher Education Multidimensional Evaluation of Teaching) Project
 - *Mathematics Teacher Education Partnership* (<u>MTEP</u>) and <u>iChange Network</u>, both funded by the National Science Foundation and supported by the Association of Public and Land Grant Universities (APLU)

Administrative Positions

June 2019 – present	Chancellor, Indiana University South Bend	
April 2016 – May 2019	Provost and Executive Vice Chancellor for Academic Affairs, University of	
	Wisconsin-Whitewater	
Oct 2014 – April 2016	Interim Provost and Vice President for Academic Affairs, Chico State	
Jan 2013 – Oct 2014	Dean, College of Science and Mathematics, Fresno State	
Jan 2010 – Sept 2012	Executive Director, Project Kaleidoscope, Association of American Colleges &	
-	Universities, Washington, D.C.	
Aug 2007 – Jan 2010	Director, Center for Excellence in Science and Mathematics Education,	
C	Cal Poly, San Luis Obispo	

Faculty and Research Positions

2013 - present	Professor, Biological Sciences associated with administrative positions
2008 - 2013	Professor, Biological Sciences Dept, Cal Poly, San Luis Obispo
2003 - 2008	Associate Professor, Biological Sciences Dept, Cal Poly, San Luis
1997 - 2003	Assistant Professor, Biological Sciences Dept, Cal Poly, San Luis Obispo
1995 – 1997	Postdoctoral Fellow, Novozymes, Inc., Davis, CA
1988 - 1990	Research Associate, UC Davis Medical Center, Sacramento, CA
1987 - 1988	Research Assistant, Biogen IDEC, Inc., Mountain View, CA

LEADERSHIP POSITIONS

Indiana University South Bend

June 2019 – Present

Chancellor

<u>Chancellor</u> of Indiana University South Bend, the largest of five regional anchor university campuses of Indiana University serving 4,400 students: 40% first-generation, 37% minority, and emerging Hispanic-Serving Institution (HSI). IU South Bend offers undergraduate and master's degree programs and certificates in five schools and colleges on an 80-acre campus, at a Center in Elkhart and online. The university has an annual budget of \$60 million, residential housing for 400 students, and six sports in the Chicagoland Collegiate Athletic Conference (CCAC) of the NAIA.

- Completed IU South Bend's \$32 million Bicentennial campaign as part of the larger \$3 billion IUwide campaign; annually raised between \$2-6 million, regularly exceeding targets; grew endowment from \$15.5 million to \$25 million.
- Shepherded the development of a 2021-2026 *Building a Brighter Future* strategic plan, entirely virtually and during the pandemic; used this plan to create subsequent campus IU2030 plan.
- Led \$8 million renovation project to create a Health Sciences Simulation Center with a \$5 million lead gift from the Vera Z. Dwyer Charitable Trust and support from local economic development funds.
- Developed Innovation & Entrepreneurship Center, including a building renovation and inaugural director position with \$2 million philanthropic gift from the Judd Leighton Foundation.
- Created new enrollment management team and strategy resulting in fall 2023 enrollment gains, the first year-over-year increase since 2009 and a return to fall 2021 levels.
- Launched financial sustainability initiative in response to pandemic-related recovery efforts, with significant progress on goals by FY23 close.
- Orchestrated the purchase of a heritage site building in the community to permanently house the IU South Bend Civil Rights Heritage Center and promote campus and community engagement in support of social and civic justice.
- Secured naming gift for the bookstore and led relocation to more visible and student-centered location.
- Led consortium of local higher education leaders resulting in new collaborations, including efforts to launch a regional health industry-education partnership and collaborative economic development funding to expand the regional health and manufacturing talent pipelines.
- Established Campus Budget and Space Advisory Councils to create more transparent budget and facilities planning and governance processes.
- Created a new fund to address faculty and staff salary inversions and compressions, and fully fund staff reclassifications; created new fund to augment faculty and staff professional development budgets.
- Strengthened coaching and scholarship support for core athletic programs.
- Revitalized campus Diversity, Equity, and Inclusion committee with charge to develop a campus DEI plan; launched Equity Advocates on search committees to reduce bias in hiring processes.

- Renewed partnership with the Pokagon Band of the Potawatomi Native American tribe, the only federally recognized tribe in Indiana, with an expanded tuition benefit MOU, emerging recruitment and retention programming, and membership on Chancellor's Advisory Board.
- Supported new health sciences graduate programs at Elkhart Center location.
- Launched new program to support students on the Autism spectrum, new programs for family and parent education, expanded dual credit and career pathway partnerships with K-12 schools, and conceptualizing a creative "gap year" program utilizing community leaders and an AmeriCorps VISTA obtained through Campus Compact.
- Expanded programming and staff support for 21st Century Scholars, Indiana's tuition benefit program for income eligible residents, resulting in increased enrollment, retention, graduation outcomes in partnership with the Community Foundation of St. Joseph County.
- Led the campus through the COVID-19 pandemic using a shared leadership approach with minimal impact on campus health.
- Increased regional visibility and enhanced partnerships through the implementation of a comprehensive regional engagement plan; supported the formation of a new campus Center for Community Engagement.
- Enhanced marketing and communications, internally and in our service region.
- Held inaugural *Night of the Titans* alumni award and scholarship fundraising dinner event.
- Created Chancellor's Leadership Program for faculty and staff to build individual and campus capacity for leadership and change.
- Achieved Top Ten Military Friendly® School designation, ranking 6th in the nation amongst small public colleges; improved to 10th in U.S. News Social Mobility Rankings amongst public universities in the Midwest.
- Supported Association for the Advancement of Sustainability in Higher Education (AASHE) STARS rating (Bronze), Tree Campus and Bee Campus designations.

University of Wisconsin, Whitewater

Provost and Executive Vice Chancellor for Academic Affairs

Chief Academic Officer of UW-Whitewater, a public comprehensive residential university, one of 13 campuses of the University of Wisconsin system with enrollment of 12,000 and participation in NCAA Division III athletics.

- Led completion of a new university strategic plan; led all aspects of implementation, including tracking key performance indicators and restructuring of some units to meet new goals.
- Created new office of Student Diversity, Engagement and Success that housed High Impact Practices (HIPs) as well as programs that better served underrepresented students access and engagement in HIPs.
- Implemented strategic enrollment planning process, including a new faculty-led academic planning process and an institutional growth mindset framework and belonging focus, including new programs such as the *Warhawk Emergency Fund* and *Fostering Success* program for former foster youth.
- Led program, policy, and operations efforts to incorporate a local two-year college as a new branch campus in a UW System restructuring initiative.
- Led conceptualization of 150th anniversary celebration activities, including themes for a \$15 million sesquicentennial campaign; shepherded development of case statements and programs that contributed to raising \$10 million raised during the silent phase of the campaign.
- Led the campus' participation in national projects, such as Re-imagining the First Year (RFY) sponsored by American Association of State Colleges and Universities (AASCU) and the National Association of System Heads (NASH) Taking Student Success to Scale (TS3) initiative focused on community-based learning and student employment initiatives, and in invited Lumina Foundation-funded projects (e.g., Quality Assurance (QA) Commons and work-based learning initiatives).

April 2016 – May 2019

- Expanded programs to promote hiring of diverse faculty, staff, and administrators.
- Improved support for research, scholarship, and creative activity, including new investments in faculty development programs, equipment purchases, and mini grants.
- Led participation of UW-W in a pilot of ACUE's (Association of College & University Educators) cohort-based/hybrid faculty teaching development program as part of a UW System initiative.
- Broadened campus commitment to sustainability, including campus participation in the Association for the Advancement of Sustainability in Higher Education (AASHE) STARS report, re-establishing the Campus Sustainability Council and Faculty Sustainability Fellowship.

California State University, Chico (Chico State)

Interim Provost and Vice President for Academic Affairs

Chief Academic Officer at Chico State, a public comprehensive residential Hispanic-Serving Institution (HSI), one of 23 campuses of the California State University system with enrollment of 16,000.

- Conceived and implemented the largest campus-based faculty equity program in the California State University system (\$1.4 million), working with union leadership and minimal grievances.
- Expanded efforts to increase diversity hiring practices in faculty, staff, and administrative search processes, increased diversity of senior management in Academic Affairs.
- Contributed to final planning phases for occupying new 90,000 square foot arts and humanities building with 100 faculty offices and new spaces for promoting active learning (opened Fall 2016).
- Served as President of the Research Foundation, a separate non-profit auxiliary associated with the university that managed \$50 million in external grants and contracts, philanthropic gifts, and community service organizations; oversight for management of university farm, field station and two nature preserves.
- Co-chaired the Campus Sustainability Committee; supported continued efforts to be a national leader in the campus sustainability movement, including signing of Second Nature's new carbon neutrality and resilience commitment.

California State University, Fresno (Fresno State)

Dean, College of Science and Mathematics

Dean of the College at Fresno State, a public metropolitan Minority-Serving Institution (both HSI and AANAPISI), one of the 23 campuses of the California State University system with enrollment of 25,000.

- Led the College in collaborative strategic planning effort; strengthened the College's governance structure and policy infrastructure, including formation of a new college advisory board.
- Secured \$1.5 M National Science Foundation grant for course reform and faculty development leading to improved student learning and success in STEM; led faculty teams to obtain additional education-focused grants, including California State University system STEM initiative and AmeriCorps VISTA program.
- Improved levels of external grants and contract awards and created new programs for supporting faculty and student research from \$1.5 M to \$4.9 M.
- Created new Advising and Resource Center in partnership with Student Affairs.
- Established new Behavioral Sciences Institute with expanded support for research, education and services for children and adults on the Autism spectrum, including laying the groundwork for a partnership with Valley Children's Hospital to provide on-site services.
- Led final design planning for the Jordan Research Center, a new privately funded interdisciplinary research building.

Oct 2014 – March 2016

Jan 2013 – Oct 2014

<u>Association of American Colleges & Universities (AAC&U)</u> Executive Director, Project Kaleidoscope (PKAL), Washington, DC

Jan 2010 - Sept 2012

Responsible for leadership and operations of national organization dedicated to advancing "what works" in undergraduate STEM (science, technology, engineering, and mathematics) higher education, including setting strategic goals, conceptualizing new initiatives, oversight of a portfolio of six national programs and projects, coordination with other AAC&U offices, and dissemination of program outcomes and trends in STEM higher education.

- Shaped new mission, vision, and goals for PKAL; designed and executed a plan to transition PKAL from an independent national organization into full partnership with AAC&U.
- Sharpened AAC&U's focus on issues of STEM higher education in the strategic plan, national programs, publications, and conferences.
- Conceived and launched three national initiatives with \$1.5 million in funding from public agencies and private foundations on sustainability issues in the undergraduate curriculum, STEM transfer student success and institutional effectiveness; completed Keck/PKAL Facilitating Interdisciplinary Learning project funded by the W.M. Keck Foundation.
- Led PKAL's Summer Leadership Institute for early and mid-career STEM faculty in Crestone, CO (Baca campus of Colorado College); doubled participation numbers; created a sustainable budget model; enhanced the curriculum and evaluation process.

California Polytechnic State University, San Luis Obispo (Cal Poly)

Director, Center for Excellence in Science and Math Education (CESaME) Aug 2007 – Jan 2010 University-level appointment responsible for interdisciplinary campus center focused on innovative program development for advancing PK-20 STEM (science, technology, engineering, and mathematics) education. Served as Associate Dean, Strategic Initiatives from July 2009 – Jan 2010 during transition of the College of Education as a School of Education in the College of Science and Mathematics.

- Developed a shared vision and strategic plan for a new campus center for STEM education.
- Obtained over \$2 million in external funding for STEM education programs and managed relationships with funding foundations and corporate sponsors, including The Bill & Melinda Gates Foundation and the Stephen Bechtel Fund.
- Built statewide STAR *STEM Teacher and Researcher* summer research program for aspiring and early career science teachers on behalf of the California State University (CSU) system (program now has nearly 600 alumni) with National Laboratory and other research site partners across California and the nation (now over 30).
- Supported development of Cal Poly's innovative *Learn by Doing Lab*.

American Council on Education (ACE) Fellow, Colorado College	Aug 2006 – Aug 2007
Presidential Mentor: Richard Celeste	
Special Assistant to the Provost	Jun 2005 – Aug 2006
Associate Chair, Biological Sciences Department	Fall 2003 – Spring 2005
Assistant Director, Center for Teaching and Learning (CTL)	Jan 2002 – Dec 2003

PRESENTATIONS AND PUBLICATIONS

Recent and Upcoming Conference Presentations, Workshops and Speaking Engagements

Elrod, S.L., Holcombe, E., and Kezar, A. *Leading Systemic Change Using the Change Leadership Toolkit* pre-conference workshop, January 17, 2024, AAC&U Annual Meeting.

Elrod, S.L. *Leading Systemic Change Using the Change Leadership Toolkit* keynote and invited workshop, October 26-28, 2023, American Association of Veterinary Medical Colleges, Veterinary Education Symposium.

- Elrod, S.L. (October 20, 2023) *Leading Systemic Change Using the Change Leadership Toolkit* invited workshop, AAAS/ Equitable Pathways to STEM Graduate Education, funded by Sloan Foundation.
- Elrod, S.L., Brenner, K., Koricich, A., Maxim, R., York, T. (October 16, 2023) Policy Implications for Regional Public and Rural Universities to Achieve Social Mobility and Economic Development Outcomes (accepted panel proposal, Coalition of Urban and Metropolitan Universities annual conference).
- Elrod, S.L., (October 9, 2023) Using the Change Leadership Toolkit to Advance Change on Your Campus keynote address, NSF ADVANCE project ASCEND: Advancing STEM Careers by Empowering Network Development, final grantee meeting.
- Elrod, S.L. (June 21, 2023) *Roundtable on Developing a Unified Identity as Regional Public Universities*. Cohosted by University of Michigan – Flint and Brookings Metro. Invited panelist.
- Elrod, S.L., (March May 2023) *Building Leadership Capacity to Achieve DEI Goals*, AAAS SEA Change Institute (institute course instructor).
- Elrod, S.L. (March 30, 2023) *Change is Hard: The Change Leadership Toolkit Can Help!*, Michigan Tech's Student Success Summit (invited workshop).
- Elrod, S.L., Maxim, R., Holton, V., (March 7, 2023) Impact of Urban and Regional Campuses in Advancing STEMM and DEI in Higher Education, CRUSE (Coalition for Reform in Undergraduate STEM Education) meeting held at the National Academies of Science, Engineering and Medicine, Washington, DC (invited panel presentation).
- York, T., Elrod, S.L., Branch, E., Pearson, Y. (March 3, 2023) Building Leadership Capacity for Systemic Change in Higher Education. AAAS (American Association for the Advancement of Science) Annual Meeting (panel presentation).
- Elrod, S.L., Kezar, A., Lawson, A. and Salomone, S. (January 20, 2023) A Leadership Toolkit for Advancing Systemic Change. AAC&U (Association of American Colleges & Universities) Annual Meeting (presentation).
- Elrod, S.L. (November 3, 2022) *Lead the Way: Building Your Capacity for Institutional Change Leadership*, National Science Foundation AGEP (Alliance for Graduate Education and the Professoriate) National Research Conference (workshop).

Books

- Holcombe, E., Kezar, A., Elrod, S.L., and Ramaley, J. (Eds) (2021) *Shared Leadership in Higher Education: Framework and Models for Responding to a Changing World*, Sterling, VA: Stylus.
- Elrod, S.L. and Stansfield, W. (2010) *Schaum's Outline of Theory and Problems of Genetics*. 5th edition. New York: McGraw-Hill.

Higher Education Publications and Contributed Works

- Elrod, S.L., Lawson, A., Salomone, S. (in press) *Leading Systemic Change: A How To Guide for Long-lasting Results*, Change: The Magazine of Higher Learning.
- González, A., Holcombe, E., Elrod, S.L., Kezar, A., (2023) *Transforming Higher Education Through an Ecosystem Model of Systemic Change Leadership*. Academic Leader. Available at: <u>https://www.academic-leader.com/topics/leadership/transforming-higher-education-through-an-ecosystem-model-of-systemic-change-leadership/</u>
- Elrod, S.L. Kezar, A., González, A., (2023) *Change Leadership Toolkit: A Guide for Advancing Systemic Change in Higher Education*. Available on the University of Southern California Pullias Center for Education website at: <u>https://pullias.usc.edu/change-leadership-toolkit/</u>
- Kezar, A., Elrod, S.L. (2020) *Taken for granted: Understanding the anti-recognition, appreciation, and celebration culture of higher education.* Change: The Magazine of Higher Learning. **52**(5): 29-36.
- Elrod, S.L., and J. Ramaley (June 5, 2020) *Shared Leadership as a Strategy for Leading in a Time of Crisis and Beyond*. Posted at Higher Education Today, a blog by ACE. Available at: https://www.higheredtoday.org/2020/06/05/shared-leadership-strategy-leading-time-crisis-beyond/
- Elrod, S.L., L. Whitehead, M.T. Huber (2020) The Scholarship of Mission: A New Concept for Promoting Scholarly Work Advancing Institutional Goals, Change: The Magazine of Higher Learning, 52:1, 15-22.

- Elrod, S.L., Parys, J., Waraczynski, M. (February 7, 2019) Shared Leadership for Student Success at UW-Whitewater. Accelerating Systemic Change Network Blog Posting. Available at: https://ascnhighered.org/ASCN/posts/217544.html
- Elrod, S.L. Interviewee. "Episode 1812: *Research on Institutional Change*" Math Ed Podcast. Posted August 24, 2018. <u>https://www.podomatic.com/podcasts/mathed/episodes/2018-08-24T07_39_07-07_00</u>.
- Elrod, S.L. and Whitehead, L. (March 7, 2018) Turning on the Thrive Channel to Accelerate Change in Higher Education. Accelerating Systemic Change Network Blog Posting. Available at: <u>https://ascnhighered.org/ASCN/posts/201117.html</u>
- Elrod, S.L. and Kezar, A. (2017) *Increasing Student Success in STEM: Summary of a Guide to Systemic Institutional Change*. Change: The Magazine of Higher Learning. **49**(4):26-34.
- Elrod, S.L. (2016) *Translating Science Education Research into Practice: A New Imperative*. The American Biology Teacher. **78**(6): 443.
- Elrod, S.L. and Kezar, A. (2016) Increasing Student Success in STEM: A Guide to Systemic Institutional Change. Washington, DC: AAC&U. Available at:
 - https://secure.aacu.org/store/detail.aspx?id=PKALSTSS
- Elrod, S.L. and Kezar, A. *Navigating Institutional Change for STEM Student Success*. Peer Review. Spring 2015. Available at: <u>https://www.aacu.org/peerreview/2015/spring</u>
- Kezar, A., Gehrke, S., and Elrod, S. L, (2015) *Implicit Theories of Change as a Barrier to Change on College Campuses: An Examination of STEM Reform.* The Review of Higher Education. **38**(4): 479-506.
- Elrod, S.L. and Kezar, A. (2015) *Increasing Student Success in STEM: An Overview of a New Guide to Systemic Institutional Change.* In *Transforming STEM Education.* Linda Slakey and Gabriela Weaver, Eds. West Lafayette, IN: Purdue University Press. (invited book chapter)
- Elrod, S.L. and Kezar, A. (2014) Developing Leadership in STEM Fields: The PKAL Summer Leadership Institute, Journal of Leadership Studies 8(1): 33-39; also served as guest editor with Kezar for this symposium issue on STEM Faculty Leadership Development Programs.
- Elrod, S.L. (2014) *Quantitative Reasoning: The Next "Across the Curriculum" Movement*, Peer Review **16**(3); 4-8.
- Elrod. S.L. and Roth, M.J.S. (2012) *Leadership for Interdisciplinary Learning: A Practical Guide to Mobilizing, Implementing, and Sustaining Campus Efforts.* Washington, DC: Association of American Colleges and Universities.
- Kezar, A. and Elrod, S.L. (2012) *Facilitating Interdisciplinary Learning: Lessons from Project Kaleidoscope*. Change: The Magazine of Higher Education **44** (1): 16-25.
- Elrod, S.L. (2011) *What Works in Facilitating Interdisciplinary Learning in Science and Mathematics*. Washington, DC: Association of American Colleges and Universities.
- Elrod, S.L., Husic, D. and Kinzie, J. (2010) *Research and Discovery Across the Curriculum*, Peer Review 12 (2): 5-9.
- Elrod, S.L. (2010) Project Kaleidoscope 2.0: Leadership for Twenty-First-Century STEM Education, Liberal Education 96 (4): 24-28.
- Garvin-Doxas, K., Klymkowsky, M. and Elrod, S.L. (2007) Building, Using and Maximizing the Impact of Concept Inventories in the Biological Sciences: Report on a National Science Foundation-sponsored Conference on the Construction of Concept Inventories in the Biological Sciences, CBE-Life Science Education 6: 277-282.
- Elrod, S.L. and Somerville, M.M. (2007) *Literature-Based Scientific Learning: A Collaborative Model*, Journal of Academic Librarianship. **33**(6): 684-691.

Scientific Research Publications (student co-authors are underlined)

- Elrod, S.L., Chen, S.M., Schwartz, K., and Shuster, E.O. (2009) *Optimizing sporulation conditions for different Saccharomyces cerevisiae strain backgrounds*. Methods in Molecular Biology. 557:21-6.
- Lord, N., Kaplan, C., Shank, P., Kitts, C. and Elrod, S.L. (2002) Assessment of fungal diversity using terminal restriction fragment (TRF) analysis: Comparison of 18S and ITS ribosomal regions. FEMS Microbiology Ecology 24(3): 327-337

- Elrod, S.L., Jones, A., Berka, R., Cherry, J.R. (2000) *Cloning of the Aspergillus oryzae hemA gene and its use as a selectable marker*. Current Genetics **38**: 291-8
- Hatcher, S.L.S., Teplitz, R.L., Elrod, S.L. (1990) *Rapid Alkaline Transfer of Low Molecular Weight DNA From Nusieve Gtg Agarose Gels.* Biotechniques **9**(3):260-262
- Scudder, S.A., Elrod, S.L., Gumerlock, P., Kawasaki, E.S. (1990) Detection of the Multidrug Resistance (MDR) Gene Using the Polymerase Chain Reaction (PCR): Correlation with in vitro Drug-Testing. Clinical Research. 38(1): A133.

Patents

- Elrod, S.L., Polypeptides having Uroporphyrinogen Decarboxylase Activity and Nucleic Acids Encoding Same. Novo Nordisk Biotech, Inc., assignee. U.S. Patent 6,200,795, March 13, 2001.
- Elrod, S.L., Cherry, J. and Jones, A. A Method for Increasing Hemoprotein Production in Filamentous Fungi. Novo Nordisk Biotech, Inc., assignee. U.S. Patents 6,261,827, August 8, 2000; 6,100,057, July 17, 2001.
- Jensen, E. B., Elrod, S.L., Cherry, J. *Methods for Overproducing Polypeptides in Respiratory-Deficient Cells*. Novo Nordisk Biotech, Inc., assignee. U.S. Patent 5,891,669, April 6, 1999.
- Elrod, S.L. and Cherry, J. Aspergillus oryzae 5-Aminolevulinic Acid Synthases and Nucleic Acids Encoding Same. Novo Nordisk Biotech, Inc., assignee. U.S. Patents 5,871,991, February 16, 1999; 5,958,747, September 29, 1999.

GRANTS AND CONTRACTS

Science Education Grants and Contracts

With National Colleagues

- Elrod, S. and Kezar, A. (December 2022 present) Change Leadership Toolkit (CLT): Development of a Validated CLT Guidebook, Curriculum, and Additional Case Studies, Alfred P. Sloan Foundation.
- Kezar, A. and Elrod, S.L. (August 2021 December 2022) *Refining Resources in Leadership Teams for Institutional Transformation*, Bill & Melinda Gates Foundation.
- Elrod, S.L. and Bauerle, C. (August 2018 June 2022, with NCE due to COVID) *Building Leadership Capacity for Systemic Change*. Workshop Proposal. National Science Foundation (DBI/DUE # 1841055 and 2017799).
- Allen, D.E., Maskiewisc, A., Sirum, K., D'Avanzo, C., and Elrod, S.L. (2014 2017) *RCN-UBE Faculty Development Network for Undergraduate Biology (FDN-UB)*, National Science Foundation (DBI #1346570)

<u>At Fresno State</u>

- Elrod, S.L., U. Muller, L. Burger, D. Zhang, M. Golden (2014 2017) WIDER: <u>Faculty Learning for</u> <u>OutComes and Knowledge (FLOCK)</u> National Science Foundation (DUE #1347822)
- Elrod, S.L. (continuing P.I.) et al. (2011 2014) Developing Biomedical Research Infrastructure for California's Central Valley. National Institutes of Health (NIH) Research Infrastructure in Minority Institutions (RIMI) #5P20MD002732-05 (revised).

At Project Kaleidoscope

- Elrod, S.L., and A. Kezar (January 2012 December 2014) Now What? An Institutional STEM Effectiveness Framework for Bringing National Recommendations to Scale, W.M. Keck Foundation
- Elrod, S.L. (June 2011 September 2012) *PKAL: Ramping Up for STEM Success*, The Bill & Melinda Gates Foundation.
- Elrod, S.L. (January 2010 December 2013) PKAL: Mobilizing Disciplinary Societies Education for a Sustainability Future, Department of Education - Fund for the Improvement of Postsecondary Education (FIPSE # P116B100142).

- Elrod, S.L., and J.L. Narum (January 2008 June 2012) *PKAL: Facilitating Interdisciplinary Learning*, W.M. Keck Foundation
- Cunningham, B., J. Young, and S.L. Elrod (January 2008 December 2011) *PKAL: STEM Leaders Developing Leaders*, National Science Foundation, #0734998.

<u>At Cal Poly</u>

- Elrod, S.L. (September 2009 December 2010) A National Pilot for the STAR (Science Teacher and Researcher) Program, National Science Foundation's Noyce Program, # 0952013.
- Elrod, S.L., S. Hackwood, A.P. Diaz, D. Howard-Greene, and S. Ogren (January December 2009) *California STEM Innovation Network Planning Grant*, Bill and Melinda Gates Foundation and The Stephen Bechtel Fund.
- Elrod, S.L. (Mar 2009 Mar 2010) *Science Teacher and Researcher (STAR) Program*, The Stephen Bechtel Fund.
- Elrod, S.L., and J. Bissell (February 2008 February 2009) *Science Teacher and Researcher (STAR) Program*, Stephen Bechtel Fund and Fluor Corporation Foundation.
- Elrod, S.L. (January 2007 December 2009) *Literature-Based Scientific Learning in Genetics*, National Science Foundation, # 0633351; *Conceptual Assessment in Biology Meeting II* Supplement.

Scientific Research Grants and Contracts

Kitts, C., R. Cano, and S.L. Elrod (2001 - 2004) *Development of microbial tools for analysis of bioremediation at the Guadalupe Dunes*, UNOCAL Corp.

Elrod, S.L. (2000 - 2002) Analysis of Fungal Molecular Diversity during Phytoremediation in a Petroleum-Contaminated Dune System, CSUPERB (California State University Programs for Education and Research in Biotechnology).

Elrod, S.L. (1997, 1998, 1999, & 2000) *Expression of bovine beta-casein in Aspergillus oryzae*. University Summer Services Grants and Faculty Development Grants (Cal Poly).

National Institutes of Health Molecular and Cellular Biology pre-doctoral training grant (1991 - 1992). University of California, Davis Graduate Research Awards (1990 - 93).

BOARD SERVICE, PROFESIONAL AFFILIATIONS AND AWARDS

Current Board Service

- South Bend Elkhart Regional Partnership (SBERP) Economic Development Board, including Chair, Education and Workforce Committee (2023 present); Member, Higher Education Advisory Council (2019 present)
- Change: The Magazine of Higher Learning, Consulting Editorial Board (2021 present)
- South Bend Regional Chamber of Commerce Board, Member (2019 present)
- HERS Board of Directors; Nominations and Governance Chair, Executive Committee Member (2018 present)

Professional Society Membership/Higher Education Association Participation

American Association for the Advancement of Science (AAAS), Section Q (Education), AAAS Fellow Association of American Colleges & Universities (AAC&U), President's Trust American Association of State Colleges and Universities (AASCU), Committee on Research Coalition of Urban and Metropolitan Universities (CUMU), President's Council

Recent Awards

Woman of the Year, YWCA of South Bend, 2022