

ELAINE BENAKSAS SCHWARTZ, Ph.D.

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Orange, Ca 92866

EDUCATION

- 1989 Ph.D. Organic Chemistry, University of California Los Angeles, Los Angeles, Ca
Dissertation Advisor: Dr. Donald Cram
Dibenzofuran Cavitanids: Ribonuclease and Serine Protease Mimics
- 1982 B.S. Chemistry, University of California Los Angeles, Los Angeles, Ca
- 1977-79 El Camino College, Torrance, Ca

CURRENT POSITIONS

- 2023- **Instructional Professor of Chemistry**, Chapman University, Orange, Ca
Instruction and curriculum development for undergraduate chemistry courses, primarily General Chemistry, Organic Chemistry, Chemistry for Health, and the Chemistry & Biochemistry and Senior Science Seminars.
- 2023- **Associate Dean External Relations and Student Advancement**, Chapman University, Orange, Ca
Identification and execution of strategies to enhance student engagement, support student success, and increase the external awareness of Schmid College, including the management/coordination of research programs such as Beckman Scholars Program; internships and career development; K-12 outreach including the Simon Scholars Program; community engagement, student leadership engagement, career and academic student advising, and curricular partnerships.

ACADEMIC POSITIONS HELD

- 2018-2022 **Program Co-Director Chemistry & Biochemistry**, Chapman University, Orange, Ca
Chemistry and Biochemistry strategic planning and program administration, including accreditation, curriculum, assessment, catalog, course schedule, faculty hiring, supplemental instruction, and academic student advising.
- 2016-2022 **Instructional Associate Professor of Chemistry**, Chapman University, Orange, Ca
- 2016-2018 **Chemistry Program Director**, Chapman University, Orange, Ca
- 2015-2022 **Assistant Dean External Relations**, Chapman University, Orange, Ca
- 2014-2016 **Co-Head of Faculty Chemistry, Biochemistry, & Food Sciences**, Chapman University, Orange
- 2013-2014 **Co-Head of Faculty Biochemistry & Molecular Biology**, Chapman University, Orange, Ca
- 2011-2015 **Instructional Assistant Professor of Chemistry**, Chapman University, Orange, Ca
- 1998-2008 **Assistant Research Professor and Assistant Director for the Laboratory of Chemical Endocrinology**, Loma Linda University Department of Medicine, Loma Linda, Ca
Directed and conducted drug discovery research of molecules of medicinal importance in the study of natriuresis, cancer, and neurodegenerative diseases. Departmental administration and research mentoring responsibilities.

1992-1997 **Laboratory of Chemical Endocrinology Research Consultant**, Loma Linda University
Department of Medicine, Loma Linda, Ca

Responsible for writing scientific publications and grant proposals, analyzing research data, and performing database searches. 1988-1992 **Assistant Research Professor**, Loma Linda University
Department of Medicine, Loma Linda, Ca.

Conducted research in the Laboratory of Chemical Endocrinology focusing on the isolation, characterization, and development of molecules for the study and mitigation of kidney disease. Guest instructor for introductory general and organic chemistry classes and laboratory sessions.

1982-1988 **Graduate Student and Teaching Assistant**, University of California, Los Angeles

Conducted research in the field of host-guest chemistry. Designed, synthesized, and characterized organic hosts in an effort to create synthetic enzyme mimics. Taught undergraduate organic chemistry and biochemistry laboratory courses.

CORPORATE POSITIONS HELD

2012-2016 **President**, Encore Pharmaceuticals Inc., Riverside, Ca

2006-2011 **Vice President Research and Development**, Encore Pharmaceuticals Inc., Riverside, Ca

Directed all research activities, including scientific project management, grant and publication writing, patent conceptualization/development, and experimental design and analysis. Developed preclinical and research strategy for pharmaceutical candidate discovery.

Principal Investigator and manager for NIH SBIR Phase I and II grants resulting in the identification of compounds as potential treatments for Amyotrophic Lateral Sclerosis (ALS). Conducted preclinical development of the identified ALS drug candidates, in preparation for submission of an Investigational New Drug (IND) Application to the FDA.

Management of Company's Intellectual Property Portfolio, including conceptualization, application writing/administration, international IP portfolio tracking, and licensing.

Co-direction of financial development team for raising corporate capital from private and corporate investment partners, as well as sublicensing intellectual property to pharmaceutical and nutraceutical companies.

Participation on a Joint Steering Committee for the Phase II/III clinical development of Flurizan[®], the Company's first drug candidate in clinical trials.

2006-2011 **Corporate Secretary**, Encore Pharmaceuticals Inc., Riverside, Ca

Management of Company's corporate documents pertaining to licenses and agreements, preferred and common stock, Board and Shareholder activities.

2000-2006 **Director of Research Operations**, Encore Pharmaceuticals Inc., Riverside, Ca

Managed the transition of Encore Pharmaceuticals, Inc. from operating within an academic environment to operating within an independent corporate environment. Designed and equipped a laboratory/office facility in the University Research Park. Established all corporate functions: human resources/personnel, facility, intellectual property management, scientific protocols and SOPs, and identity development. Directed all research activities, including grant writing. Managed the Company's intellectual property portfolio and corporate documents.

2000-2004 **Associate Director Research Operations**, EncorePharma Development Services, Riverside, Ca
Part of the clinical development team for the Company's first drug candidate, Flurizan®. Participated in writing the IND, clinical trial reports, and FDA annual reports involving Flurizan® for anti-cancer and anti-Alzheimer's disease indications. Developed client proposals for the Contract Research Organization (CRO) function of the Company.

AWARDS

2021 Unit Faculty Excellence Award, Chapman University
2018 Best Student Advocate Award, Chapman University Office Residence Life
2016 Best Student Advocate Award, Chapman University Office Residence Life
2015 Chapman University Achievement Award for Excellence in Service
2013 Chapman University Achievement Award for Excellence in Teaching
1983 DuPont Teaching Award, University of California Los Angeles
1979 Science Department Award, El Camino College

GRANTS

2024-2027 Principal Investigator Beckman Foundation Grant, Chapman Beckman Scholars Program (\$186K)
2021-2024 Principal Investigator Beckman Foundation Grant, Chapman Beckman Scholars Program (\$186K)
2019-2020 Pedagogical Innovation Faculty Grant, *Educating Educators: Supporting instructional leadership among the STEM Supplemental Instructors* (\$5K)
2004-2008 Principal Investigator National Institutes of Health Grant SBIR Phase II grant, 2 R44 AG023519, Title: *Novel CEHC Derivatives for Neuroinflammation* (\$750K)
2003-2004 Co-investigator National Institutes of Health Grant SBIR Phase I grant, 1R43 AG023519, Title: *Novel CEHC Derivatives for Neuroinflammation* (\$100K)
1997-2003 Co-investigator National Institutes of Health Grant RO1 grant, HL56066, Title: *Approaches to Natriuretic and Antihypertensive Agents* (\$250K)

PUBLICATIONS

Hsu, J., Rowland-Goldsmith, M. and **Benaksas Schwartz, E.J.** *Student Motivations and Barriers Towards Online and In Person Office Hours in STEM Courses*. [Manuscript submitted for publication]

Agranat, Israel and **Benaksas Schwartz, E.J.**, *Chiral Control*. Manuscript in progress.

Grammas, P., Hamdheydari, L., **Benaksas, E.J.**, Mou, S., Pye, Q.N., Wechter, W.J., Floyd, R.A., Stewart, C.A., Hensley, K. (2004) *Anti-inflammatory Effects of Tocopherol Metabolites*. BBRC 319:1047-1052.

Hensley, K., **Benaksas, E.J.**, Bolli, R., Comp, P., Grammas, P., Hamdheydari, L., Mou, S., Pye, Q., Stoddard, M., Wallis, G., Williamson, K.S., West, M., Wechter, W.J. and Floyd, R.A. (2004) *New Perspectives on Vitamin E: γ -Tocopherol and Carboxyethylhydroxychroman Metabolites in Biology and Medicine*. Free Radical Biology & Medicine, 36, 1-15.

Benaksas, E.J., Murray, E.D., Jr., and Wechter, W.J. (1995) *Natriuretic Hormones II*. Progress in Drug Research, 45, 245-288.

Benaksas, E.J., Murray, E.D., Jr. Rodgers, C.L., Pham, T., Bigornia, A.E., DeWind, S.A., Geibel, R., Brubacher, E.S., and Wechter, W.J. (1993) *Endogenous Natriuretic Factors 1: Sodium Pump Inhibition Does Not Correlate with Natriuretic or Pressor Activities from Uremic Urine*. Life Sci. 52, 1045-1054.

Cram, Donald J., **Benaksas-Schwartz, Elaine J.**, Knobler, Carolyn. (1992) *Host-guest Complexation. 65. Six New Saddle Shaped Hosts Based on Fused Dibenzofuran Units*. J. Am. Chem. Soc. 1992, 114, 27, 10775–10784, <https://pubs.acs.org/doi/abs/10.1021/ja00053a014>

Wechter, W.J. and **Benaksas, E.J.** (1990) *Natriuretic Hormones*. Progress in Drug Research 34, 231-257.

Benaksas Schwartz, E.J. (1989) *Dibenzofuran Cavitands: Ribonuclease and Serine Protease Mimics and a New Method for Synthesizing 4-Aryl Imidazoles*. Ph.D. Dissertation. (University of California, Los Angeles, 228 pp. Diss. Abstr. Int. B. 1989, 50(2), 565.

PATENTS

Wechter, W.J., Gutierrez, I., **Benaksas Schwartz, E.J.**, Murray, E.D. Jr., USP Appl 20040152777, *Therapeutically Active Compounds*, Published October 5, 2004.

Wechter, W.J., Murray, E.D. Jr., **Benaksas Schwartz, E.J.**, Gutierrez, I., Quiggle, D.D., USP Appl 20040152146, *Methods for Screening Compounds for Use in the Treatment of Disease*, Published October 5, 2004.

Wechter, W.J., **Benaksas Schwartz, E.J.**, Murray, E.D. Jr., Gutierrez, I., USP Appl 20040151758, *Fat Substitutes*, Published October 5, 2004.

Wechter, W.J., **Benaksas Schwartz, E.J.**, USP Appl 20040067914, *R-NSAID Esters and their Use*, Published October 3, 2003.

Wechter, W.J., Murray, Jr. E. D., Kantoci, D., Levine, B., **Benaksas Schwartz, E.J.**, USP 6,150,402, *Natriuretic Compounds*, November 21, 2000.

Wechter, W.J., Murray, Jr. E. D., Kantoci, D., Levine, B., **Benaksas, E.J.**, USP 6,083,982, *Natriuretic Compounds*, July 4, 2000.

Wechter, William J.; Murray, David E.; Kantoci, Darko; Levine, Barry H.; **Benaksas, Elaine J.**, US 94-290430 940815; WO 95-US10411 950815, *Natriuretic Cyclic Compounds*. February 22, 1996.

BOARDS

Encore Pharmaceuticals, Inc. Director 2008-2017

Temple Beth Sholom Board of Directors 1996-2017 (President 2009-2011)

Temple Beth Sholom Congregant of the Year, 2004-2005