

Eric L. Barker is the Vice President for Health Affairs and the Jeannie and Jim Chaney Dean of Pharmacy at Purdue University. In addition to his role as dean, he has served as Associate Provost for Graduate Programs (acting; 2023-2024) and Campus Team Lead for Purdue's COVID-19 response (2020-2022). He holds the academic rank of Professor of Medicinal Chemistry and Molecular Pharmacology in the Purdue College of Pharmacy. Before he was appointed dean, he previously held appointments as Associate Dean for Research (2010-2017) and Assistant Dean for Graduate Programs (2007-2010) in the Purdue College of Pharmacy. He joined the Purdue faculty in 1998. He received his BS in pharmacy from St. Louis College of Pharmacy, a PhD in pharmacology from Vanderbilt University, and completed postdoctoral research at Vanderbilt and Emory University.



Vice President Barker has had a distinguished twenty-eight-year career at Purdue University – an R1 land-grant institution that is a member of the AAU. His scholarly interests are in the area of molecular actions of drugs of abuse and other drugs that affect the brain. He has received grant support from the National Institute on Drug Abuse, National Institute of Mental Health, National Alliance for Research on Schizophrenia and Depression, Lilly Research Laboratories, and DARPA. In addition to his scholarly pursuits, he has been recognized for his efforts in teaching medicinal chemistry and pharmacology, having received the Purdue College of Pharmacy Dr. Aziz Outstanding Teaching Award as well as the Purdue University Charles B. Murphy Outstanding Undergraduate Teaching Award (the highest university-level teaching award) and selection to the Purdue Teaching Academy and the Purdue Book of Great Teachers. Dr. Barker was the recipient of the Outstanding Achievement Award from the St. Louis College of Pharmacy (now the University of Health Sciences and Pharmacy in St. Louis) in 2018.

Dr. Barker is a neuropharmacologist and an award-winning undergraduate teacher. He is a member of several professional associations that include the American Pharmacists Association, Society for Neuroscience, American Association of Colleges of Pharmacy, and American Society for Pharmacology and Experimental Therapeutics, where he has served in leadership positions for the Neuropharmacology Division. From 2016-2021, he served as editor-in-chief for *Pharmacological Reviews*, a top-ranked quarterly peer-reviewed scientific journal.

Executive Leadership

Vice President Barker's campus-level leadership positions have provided him with a broad understanding of the complexities of an R1 public university as well as contemporary issues impacting undergraduate, graduate, and professional education. His administrative, research, and academic experiences extend across the Purdue campus with significant engagement with Engineering, Health and Human Sciences, Science, Business, Agriculture, Liberal Arts, Education, Purdue Global (online), Athletics, Student Life, and the Indiana University School of Medicine. From 2020-2022, he served as the campus leader for Purdue's COVID-19 response. In his current role, he is providing oversight for Purdue's One Health initiative – driving cross-disciplinary research, academic programs, and community engagement across human, animal, plant, and environmental health.

He is known as a highly effective communicator who seeks to serve as a bridge for the various internal and external stakeholders of the university and connect with key university leaders to advance academic operations and pursue innovative strategic directions. His leadership style is based on fostering collaborations and approachability, driving innovations, enhancing student learning and success, contributing to the recruitment, retention, and development of faculty, staff, and students, and establishing an academic environment embracing shared governance, free speech, and freedom

of inquiry. Engaging with federal and Indiana state legislators and leaders is an important part of his portfolio with bi-weekly meetings with the university legislative affairs team. Dr. Barker recently represented Purdue at the 2025 Indianapolis Leadership Exchange (LEXIndy) led by the Indy Chamber (Chamber of Commerce). The delegation of 133 healthcare, business, civic, and academic leaders was focused on “Health First” and met in Washington DC to study the relationship between health and economic prosperity.

Philanthropic Success

Vice President Barker has been one of the most effective fundraising academic leaders on Purdue’s campus, raising nearly \$280M in his nine years as dean. Philanthropic support for his units has been a high priority to ensure present and future success. He currently oversees the advancement team focused on Purdue’s One Health Initiative. A comprehensive philanthropic strategy has been employed with a high level of donor engagement, coupled with the use of blended gifts with complex giving vehicles (NIMCRT, CRT, CLT, etc.) to achieve tremendous impact. He is a consultant and presenter with Academic Advancement Partners (AAP). AAP provides external consulting, teaching, and mentoring to advance philanthropy for educational institutions and organizations with an emphasis on major gift fundraising. Philanthropic highlights include:

- Serving on the Campus Planning Committee for the \$4B “Victories & Heroes” campaign launched in February 2025.
- Raising ~\$45M for the Nursing-Pharmacy Education Building (currently under construction) – the most successful pre-approval capital campaign in Purdue’s history.
- Developing the \$78M proposal for the Lilly Endowment to support the creation of a 30 MeV cyclotron facility to support radioisotope and materials research, as well as workforce development for the radiopharmaceutical industry in central Indiana.
- Securing a \$20M gift to support the Marcel Sassola III Leaders and Entrepreneurs in Pharmacy program.
- Securing a \$20M cash gift to support the creation of the Center for Health Analytics and Therapeutic Intelligence.
- Securing a \$20M cash gift to support establishing the Low Institute for Therapeutics to bolster Purdue’s drug discovery efforts.
- Securing a \$17M scholarship commitment for Jeannie and James Chaney – the largest scholarship commitment in college history.
- Ranking as the number one unit on Purdue’s campus for the annual Purdue Day of Giving in 2018 (\$9.1M), 2022 (\$8.2M), 2023 (\$23.0M), 2024 (\$17.5M), and 2025 (\$24.5M).

Other Key Achievements/Responsibilities:

Vice-President for Health Affairs (2024-present)

- Administrative oversight for the College of Health and Human Sciences, the College of Veterinary Medicine, and the College of Pharmacy. This includes 15 academic departments as well as the veterinary teaching hospital and clinics, speech and audiology clinic, nursing clinics, and community pharmacy.
- Faculty/staff metrics (Fall 2025): 67 continuing term lecturers, 304 clinical faculty, 292 tenured/tenure track faculty. Total: 663 faculty members. 1031 staff members across the three colleges.
- Student metrics (Fall 2025): 6720 undergraduate, 929 professional, 1024 graduate students. Total: 8673 students.
- Provide academic program and engagement oversight for the Purdue One Health initiative ([link](#)). Partner with the Vice President for Research to advance One Health research initiatives in the following thematic areas: Grown with Precision, Designed for Health (agriculture, food as medicine, microbiome); Disease Modeling, Analytics, and Surveillance (AI-driven modeling, zoonotic disease prediction); Translational Health, Logistics, and

Delivery of Care (pharma manufacturing, supply chain, clinical care); Therapeutics, Devices, and Novel Diagnostics (drug discovery, regenerative medicine, cross-species interventions).

- Serve on the Joint Steering Committee for the \$50M Purdue-Eli Lilly Partnership – a model for public-private partnerships in research.
- Collaborate with various stakeholders on the planning for the new One Health Innovation District as part of our Purdue University in Indianapolis campus. This district is a partnership with Elanco Animal Health and will serve as a research park for industry and Purdue to focus on solving pressing issues impacting animal, plant, human, and environmental health.
- Completed feasibility study for new ~\$170M interdisciplinary Life Sciences Research Building. The top capital request (\$90M) to the state of Indiana for the 2025-26 budget.
- Partner with the Office of Legislative Affairs to promote the capital projects and other key budgetary and legislative agenda items. Numerous meetings with both the Indiana House and Senate Budget Committees.
- Worked to develop new cross-disciplinary academic undergraduate and graduate degree programs in radiopharmaceuticals, bioastronautics, and One Health.
- Execute a \$1.5M Feasibility Study on “Developing Innovative Health Solutions for Northwest Indiana.”
- Serving on the Board of Directors for Franciscan Alliance Western Indiana (~300-bed hospital network). As part of this board, serve on the Quality Assurance and Performance Improvement (QAPI) committee.
- Total budgetary responsibility = \$268.6M annually (FY25)

Associate Provost for Graduate Programs (2023-2024)

- Responsible for Purdue’s Graduate School (now the Office of the Vice Provost for Graduate Students and Postdoctoral Scholars), which oversees the ~240 graduate programs across the entire Purdue system and the ~14,000 graduate students and post-doctoral fellows. The Purdue system-wide graduate program oversight includes campuses in Northwest Indiana, Fort Wayne, and Indianapolis.
- Worked on the transition of graduate students to the newly formed Purdue University in Indianapolis. In July 2024, Purdue established Purdue University in Indianapolis to replace Indiana University – Purdue University in Indianapolis and establish an urban campus presence as an extension of the West Lafayette main campus.
- Led the “Graduate School Transformation Project,” which streamlined numerous processes and identified new ways to facilitate graduate and professional student success and remove barriers for colleges and departments to create new and innovative graduate and professional programs.
- Addressed key graduate student issues such as improving mentoring, proactively increasing graduate student stipends, building out graduate programs at Purdue University in Indianapolis, and serving on the Action Council for Student Well-being.

Campus-level leadership during the COVID-19 pandemic (2020-2022)

In June 2020, Purdue President Mitch Daniels asked Dr. Barker to provide campus-level leadership to all medical aspects of Protect Purdue (Purdue’s COVID-19 response). These efforts allowed him to have daily interactions across almost all aspects of the university’s complex operation to maintain one of the safest and most open large universities in the country throughout the pandemic.

- Worked with Institutional Data Analytics + Assessment (IDA+A) to develop the analytics-based contact system tracing.
- Served as co-leader for the Medical Advisory Committee.
- Attended the Presidential daily briefings.
- Collaborated with the other university leaders, including Human Resources, Physical Facilities, Procurement, Research, and the Provost's Office.

- Provided administrative leadership for the Protect Purdue Health Center (PPHC). PPHC was Purdue's dedicated COVID-19 clinical center that included over 100 healthcare workers.
- Responded to media inquiries from both local, regional, and national news sources.

Dean, College of Pharmacy

- Doubling of research expenditures by College of Pharmacy faculty to ~\$35M annually. This ranking places the Purdue College of Pharmacy number four out of 142 colleges of pharmacy in the U.S. for sponsored research (3-year average).
- The [2018 Giant Leaps in Pharmacy Strategic Plan](#) was developed to guide advances in academic programs, research & innovations, pharmacy & healthcare, faculty & staff investments, student experience & success, and alumni engagement. The plan also guided investments in drug discovery, advanced manufacturing of pharmaceuticals, and health equity. The William Young Institute for Advanced Manufacturing of Pharmaceuticals was launched in 2022 as a cross-disciplinary center between pharmacy, chemistry, and engineering.
- Strong relationships with industry partners for research and workforce development, collaborating with the Purdue Office of Industry Partnerships.
- Expansion of programs at the Purdue University in Indianapolis campus (the urban extension of the West Lafayette campus) to include pharmaceutical manufacturing, radiopharmaceuticals, and establishing the Center for Health Excellence, Quality and Innovation. The College of Pharmacy's Indianapolis cohort of faculty and students represents a major connection with the Indiana University School of Medicine.
- Working closely with Physical Facilities, Dr. Barker has led efforts to improve the quality and quantity of teaching and research space in the College. In April 2023, the Indiana General Assembly approved \$89M for a new Clinical Education Building for Pharmacy and Nursing (total project cost \$160M). Dr. Barker worked directly with Legislative Affairs to advocate for this project.
- Prioritizing visible and vocal leadership for the College, Dr. Barker has engaged in professional advocacy. Since 2017, he has had meetings with Sen. Todd Young, Sen. Mike Braun's staff, hosted Rep. Sheila Klinker in the College, attended bill signings in the Governor's Office (HB1540, HB1246, HB1248), attended Indiana Pharmacists Association Legislative Days at the Statehouse, and visited Washington DC for meetings with the Indiana congressional delegation and NIH.
- A restructuring of the College's Office of Student Services to modernize and gain efficiencies. This effort has enabled optimization for student success, including advising and academic support. As a result of these enhancements, the College is realizing improved student retention and recruitment. The College continues to see full enrollment in the Doctor of Pharmacy program bucking national trends of declining pharmacy school applications and enrollments.
- Implementing an innovative "Student Success Plan" that includes the use of Academic Success Coaches to proactively address student educational needs and ensure on-time progression.

Curriculum Vitae

Eric Landon Barker

**Vice President for Health Affairs
Jeannie and Jim Chaney Dean of Pharmacy
Purdue University
College of Pharmacy**



EDUCATION: Saint Louis College of Pharmacy, Saint Louis, MO.
Bachelor of Science in Pharmacy, 1988.

Vanderbilt University, Nashville, TN.
Department of Pharmacology, (E. Sanders-Bush, Mentor)
Doctor of Philosophy, 1993.

**PROFESSIONAL
EXPERIENCES:**

Purdue University College of Pharmacy, West Lafayette, IN
Department of Medicinal Chemistry and Molecular Pharmacology
Assistant Professor, 1998-2004
Associate Professor, 2004-2011
Assistant Dean for Graduate Programs, 2007-2010
Associate Dean for Research, 2010-2017
Professor, 2011-present
Dean, 2017-2022
Jeannie and Jim Chaney Dean of Pharmacy, 2022-present
Associate Provost for Graduate Programs (acting), 2023-2024
Vice President for Health Affairs, 2024-present

Indiana University School of Medicine-West Lafayette, IN
Adjunct Professor of Pharmacology and Toxicology, 2015-present

Vanderbilt University School of Medicine, Nashville, TN
Department of Pharmacology, (R. Blakely, Mentor)
Post-Doctoral Research Associate, 1995-1997.
Instructor, 1997-1998.

Emory University School of Medicine, Atlanta, GA.
Department of Anatomy and Cell Biology, (R. Blakely, Mentor)
Post-Doctoral Research Associate, 1993-1995.

PHARMACY

LICENSURE: State of Tennessee, #C-7354 (status: retired)

PHARMACY-RELATED EXPERIENCES:

1983-1985 **Reese Drug Stores, Inc., Granite City, IL**
Pharmacy Apprentice

1985-1988 **Jewish Hospital of Saint Louis, Saint Louis, MO**
Senior Pharmacy Student

1988 **Washington University Medical Center, Saint Louis, MO**
Clinical Pharmacy Intern in Psychiatry

1988-1991 **Hooks-SupeRx, Inc., Nashville, TN**
Long-term Care Consultant Pharmacist

TEACHING EXPERIENCES:

1984-1987 **Saint Louis College of Pharmacy, Saint Louis, MO**
General Chemistry Lab Assistant

1992-1993 **Vanderbilt University, Nashville, TN**
Undergraduate research project mentor: Student, Anthony Tharp

1993-1995 **Emory University, Atlanta, GA**
Undergraduate Honors thesis project mentor: Student, Melody Gray

1995 **Emory University, Atlanta, GA**
Biology Department
Instructor, Advanced Undergraduate Neurobiology Laboratory

1996-1997 **Trevecca Nazarene University, Nashville, TN**
Physician Assistant Department
Adjunct Assistant Professor, Pharmacology

1997 **Vanderbilt University, Nashville, TN**
Department of Pharmacology
Drug evaluation group leader, Pharmacology 501

1998-present **Purdue University, West Lafayette, IN**
Department of Medicinal Chemistry and Molecular Pharmacology
MCMP 407, 408, 440, 441, 442, 544, 611, 617; PHRM 825, 844, 845

GRADUATE TRAINING PROGRAMS:

1998-2004 Purdue University, Biochemistry and Molecular Biology Program
1998-2004 Purdue University Neuroscience Program
2004-present Purdue University Life Sciences (PULSe), Integrative
 Neuroscience

Past Trainees: Theresa Day (M.S. 2001), Gustavo Rodriguez (Ph.D. 2004), David Roman (Ph.D. 2004), Kellie White (Ph.D. 2005), Matthew McFarland (Ph.D. 2006), Tamera Bardell (M.S. 2007), Crystal Walline (Ph.D. 2007), Ekaterina Terabova-Placzek (Ph.D. 2008), Melissa Torres-Altora (Ph.D. 2008), Marla Yates (Ph.D. 2008), Natalie Sealover (Ph.D. 2009), Rachel Wright (M.S. 2012), Todd Bauer (M.S. 2014), Timothy Beenen (M.S. 2015), Charles Kuntz (Ph.D. 2015), Shari Radford (M.S. 2016)

Past Post-Doctoral Trainees: Abbas Jarrahan, Ph.D.

Current position: Lecturer/Lab Manager, The Ohio State
University - Lima

Soma Mukhopadhyay, Ph.D.

Research Scientist, Dept. of Biology, Purdue University

BingNan Han, Ph.D.

Associate Professor,

Department of Ocean Science and Engineering

Zhejiang University

Zhejiang Province, P.R. China

HONORS AND AWARDS:

Presidential Scholarship

Magna Cum Laude

Dean's List

Rho Chi Pharmaceutical Honor Society

McKesson Leadership Award

American Pharmaceutical Association Award

Saint Louis Society of Hospital Pharmacists, 1988 Student of the Year

William S. Bucke Leadership Award

Trevecca University Physician Assistant Didactic Professor of the Year, 1996

American College of Neuropsychopharmacology/Mead Johnson Travel Award, 1997.

St. Louis College of Pharmacy Young Alumni Award, 1998.

Dr. Aziz Outstanding Teaching Award, 2007 Purdue University School of Pharmacy

Purdue University, Faculty Scholar 2011-2017

Fellow, Committee on Institutional Cooperation (CIC)-Academic Leadership Program,
2011-2012

Charles B. Murphy Outstanding Undergraduate Teaching Award, 2013 Purdue University (This
award is the University's highest undergraduate teaching honor).

Purdue University, The Book of Great Teachers, 2013

Purdue University, Teaching Academy, 2013

St. Louis College of Pharmacy, Distinguished Alumni - Outstanding Achievement Award, 2018

STUDY SECTION SERVICE:

Austrian Science Foundation, 2000

Member, CEBRA Special Emphasis Study Section, NIDA 2002

Ad hoc member, Neurotransporter, Receptor, Channels, and Calcium Signaling Study Section, NIH, June 2005

Member, CEBRA Special Emphasis Study Section, NIDA 2005

Member, CEBRA Special Emphasis Study Section, NIDA 2006

Member, NIDA Drug Discovery Special Emphasis Study Section, 2007

Ad hoc member, Neurotransporter, Receptor, Channels, and Calcium Signaling Study Section, NIH, June 2009

Ad hoc member, NIH Challenge Grant Reviewer, June 2009

Member, NIH Drug Discovery for the Nervous System Special Emphasis Study Section, June 2009

Member, NIH Special Emphasis Panel MDCN-P(03), AED review, August 2009

Israel Ministry of Science Proposal Review, September 2009

Member, NIH Special Emphasis Panel/Scientific Review Group MDCN-B Drug Discovery AED review, November 2009

Member, NIH Special Emphasis Panel MDCN-F (02) Transporters and Receptors, Teleconference Review, February 2010

Member, NIH Special Emphasis Panel MDCN-B, AED review, June 2010

Member, NIH Special Emphasis Panel ZDA1-JXR-D(09) Medications Development Program Projects for Substance-Related Disorders, October 2011

Member, NIH Special Emphasis Panel February 2012; NIH Special Emphasis Panel BPNS November 2012; NIH CEBRA Review November 2012.

Member, NIH P01 Special Emphasis Panel July 2014

Member, NIH Biophysics of Neural Systems (BPNS) Study Section, October 2014

Member, NIH Special Emphasis Panel, December 2014 Member, NIDA Centers of Excellence (P50/P30), March 2015

GRANT SUPPORT:

Defense Advanced Research Projects Agency (DARPA):

Analytic-Directed Multi-scale Synthesis System \$8,263,198

2016-2019 (R.G. Cooks, PI; E. Barker, Z. Nagy, D. Thompson, A. Grama- Co-I's)

National Institutes of Health:

R21AA019529 Anxiety in a Genetic Animal Model of Alcoholism: Role of Endocannabinoids 2010-2012 (J. Chester and E. Barker, PI's)

R01 DA018682-05 (formerly R01 MH60221) Psychostimulant Recognition by Serotonin Transporters 2000- 2012 (E. Barker, PI)

R21DA024193-01 Lipidomic profile of endocannabinoids from neuronal cells 2009-2011 (E. Barker and V. Jo Davisson, PI's)

R21 DA018844 Identification of Anandamide Transport Proteins 2004-2007 (E. Barker, PI)

R21 DA018112 VR1 Receptor-Induced Synthesis of Anandamide in Caveolae 2004-2007 (E. Barker, PI)

R21 DA13268 Molecular Analysis of Endocannabinoid Transport 2000-2003 (E. Barker, PI)

R01 DA02189 Stereochemical Aspects of Hallucinogenesis 1999-2003 (D. Nichols, PI)

Foundation or Industrial Support:

Emory University Center for Neurological Sciences Fellowship, 1994

National Research Service Award,

Project: Molecular pharmacology of serotonin transporters, 1995-1998

Bristol-Myers Squibb,

Project: Identification and characterization of a transporter for the endogenous cannabinoid, anandamide, 1997-1999

National Alliance for Research on Schizophrenia and Depression:

2000 Young Investigator Award

Project: Modulation of Endocannabinoid Transport by Dopamine Receptors, 2000-2002

2004 Young Investigator Award

Project: Synthesis and Evaluation of Selective Anandamide Reuptake Inhibitors, 2004-2007

Lilly Research Laboratories,

Project: Molecular Identification and characterization of the anandamide transporter, 2000-2005

Purdue Research Foundation Xr Grant

Project: A Role for ERp57 in Anandamide Uptake and Metabolism, 2007-2008

Seed grant Ara Parseghian Medical Research Foundation/BReaK-thru Fund

Project: Drug Screening Assay Development for Niemann-Pick Disease Type C, 2009-2010

Purdue EVPRP New R01 Grant

Project: Structural dynamics of psychostimulants at dopamine transporters, 2015-2016

Educational Grants:

Multimedia Instructional Development Center grant, "Implementation of Internet-based Streaming Multimedia in Undergraduate Curriculum." (1999) \$14,400. This grant enabled the purchase of a web server to provide "streamed" multimedia to students in the professional curriculum.

Instructional Computing Grant, "Establishing an in-house facility for the instruction in and production of professional quality scientific posters for Pharm.D. and graduate student project presentations." Co-PI's with Dr. Matthew Murawski, PHPR. (2000) \$9,272. Provided support for the purchase of HP DesignJet 755CM color poster printer.

Purdue Instructional Innovation Program, "Enhancing Student Learning using HoloLens-based Mixed Reality Instructional Simulations" (2016-2019) \$98,528. Co-I's with K. Weatherman, M. Sharp, G. Takahashi.

Other Scholarly Projects:

Clinical Drug Experience Knowledgebase and Center for Research Innovation and Biotechnology. Co-PI. 2025-present. <https://pharmacy.purdue.edu/purdue-center-offers-first-comprehensive-open-access-database-of-all-clinically-tested-drugs/>

Convoy App Development 2013-2015. Development of new course content aggregator. http://www.itap.purdue.edu/newsroom/news/140314_studio_convoy.html

INVITED PRESENTATIONS:

National/International Symposia/Conferences:

- August 2023 American – Irish Medical Summit, Royal College of Surgeons of Ireland, Dublin, Ireland, Panelist on Innovation – Biotech.
- July 2000 Gordon Research Conference, Membrane Transport Proteins
- June 2005 AAPS Biotechnology Conference, Lipidomics Symposium, San Francisco, CA
- October 2005 National Alliance for Research on Schizophrenia and Depression (NARSAD) Symposium, Mt. Sinai Med Center, New York, NY (*Chaired by Nobel Laureate Eric Kandel*)
- November 2005 Transporter Biology Conference, Arlington, VA (Satellite meeting to Society for Neuroscience)
- June 2006 AAPS National Biotechnology Conference, Lipidomics Symposium, Boston, MA
- April 2009 “The end of cannabinoids as we know it: Molecular control of anandamide inactivation.” ASPET Julius Axelrod Symposium, Experimental Biology ‘09, New Orleans, LA

University/Institutional Invitations:

- March 1994 Predoctoral Training Program in Biochemistry, Cell and Molecular Biology Seminar, Emory University.
- October 1994 Neuroscience Seminar, Emory University.
- October 1996 Division of Clinical Pharmacology Seminar, Vanderbilt University
- May 1997 Department of Medicinal Chemistry and Molecular Pharmacology, Purdue University
- October 1999 Purdue University Neuroscience Retreat
- December 1999 Eli Lilly Research Laboratories, Neuroscience Seminar
- March 2000 Department of Basic Medical Sciences, Purdue University
- May 2000 Department of Medicinal Chemistry and Pharmacognosy, University of Illinois-Chicago, Center for Botanical Dietary Supplements Research
- September 2001 Department of Pharmaceutical Sciences, University of Southern California
- April 2004 Department of Biology, Hope College, Holland MI
- December 2004 Department of Biochemistry, SUNY-Stonybrook
- December 2004 Stark Neuroscience Institute, IUPUI, Indianapolis, IN
- November 2006, "Ins and Outs" of Endocannabinoid Transport, Department of Physiology, University of Texas Health Science Center at San Antonio, TX
- November 2007 “Exploration of Drug Binding Sites on the Antidepressant- and Cocaine-Sensitive Serotonin Transporter.” Southern Illinois University – Edwardsville School of Pharmacy, Edwardsville, IL
- November 2008 “Exploration of Drug Binding Sites on the Antidepressant- and Cocaine-Sensitive Serotonin Transporter.” Butler University College of Pharmacy and Health Sciences, Indianapolis, IN
- August 2009 “Exploration of Drug Binding Sites on the Antidepressant- and Cocaine-Sensitive Serotonin Transporter.” West Virginia University School of Pharmacy, Morgantown, WV
- March 2012 “Molecular and system effects of psychostimulants on serotonin transporters.” University of Iowa College of Pharmacy, Iowa City, IA

Professional Meetings or other Presentations:

July 2001	Attracting the Best and Brightest: Strategies for Graduate Student Recruitment. AACP Annual Meeting, Toronto, Canada
September 2001	Attracting the Best and Brightest: Strategies for Graduate Student Recruitment. USC School of Pharmacy
December 2001	Attracting the Best and Brightest: Strategies for Graduate Student Recruitment. Purdue University Graduate School Forum
May 2003	Street Drugs/Methamphetamine: Psychological & Physiological Effects National Council of Juvenile and Family Court Judges, 22 nd Annual Triple Header Conference, Indianapolis, IN
November 2003	Street Drugs/Methamphetamine: Psychological & Physiological Effects Rhode Island Family Court Truancy Summit Salve Regine University, Newport, RI
November 2003	Street Drugs/Methamphetamine: Psychological & Physiological Effects Pi Beta Phi, Purdue University
May 2005	Street Drugs/Methamphetamine: Psychological & Physiological Effects National Council of Juvenile and Family Court Judges, Annual Conference, Lake Tahoe
August 2011	White Coat Ceremony Keynote Speaker, School of Pharmacy Southern Illinois University at Edwardsville, Edwardsville, IL
January 2014	Preeminence in Pharmacy Education & Research: Looking to the Future University of Michigan College of Pharmacy
March 2016	Preeminence in Pharmacy Education & Research: Looking to the Future University of Kentucky College of Pharmacy
September 2016	Purdue College of Pharmacy Update, Indiana Pharmacists Alliance Annual meeting, Indianapolis, IN
April 2017	“How to write a review article” Here It From The Editors symposium, Experimental Biology ‘17, Chicago, IL
March 2019	Faculty Development Seminar, University of Nebraska School of Pharmacy
April 2019	BoilerWoRx presentation at the Opioid Data to Action: Combating Addiction Through Innovation conference (sponsored by the IU School of Social Work), Indianapolis
September 2019	White Coat Ceremony Speaker at the St. Louis College of Pharmacy, St. Louis, MO
May 2021	Commencement speaker, Texas A&M Irma Lerma Rangel College of Pharmacy, College Station, TX
April 2022	Guest lecturer – Alumni Leadership Course, University of Health Sciences and Pharmacy in St. Louis.
April 2024	“Innovating the Path Forward” Iowa State University, Ames IA
April 2024	Keynote Address, iA (Innovation Associates) Corporate Advisory Board Meeting, Naples FL
October 2025	Purdue University-Industry Consortium, Indianapolis, IN Keynote Speaker, “Purdue One Health: Innovating at the Intersection of People, Pets, Plants, and the Planet.”

Editorial Service

Editor, *Pharmacological Reviews*, 2016-2021; Associate Editor, 2010-2015, 2022-2023(5-year ISI Impact factor **25.47**)

Ad Hoc Reviewer for:

Journal of Biological Chemistry
Journal of Pharmacology and Therapeutics
Neuropsychopharmacology
Molecular Pharmacology
Journal of Neurochemistry
Protein Science
British Journal of Pharmacology
European Journal of Pharmacology
Neuropharmacology
PNAS
Neurochemistry International
Lippincott Williams & Wilkins Textbook Review

PROFESSIONAL ASSOCIATIONS:

American Pharmacists Association:

- Academy of Pharmaceutical Research and Sciences, 1988-present.
- Academy of Students of Pharmacy, 1985-1988 (Chapter president, 1987).
 - 1987 APhA Policy committee on professional affairs.
 - 1988 APhA Policy committee on educational affairs.
 - 1993 APhA Policy committee on scientific affairs (declined)
- Purdue University ASP Chapter Advisor, 2000-2004

American Association for the Advancement of Science, 1990-present.

Society for Neuroscience, 1994-present.

American Association of Colleges of Pharmacy, 1998-present

- Purdue School of Pharmacy Delegate, 2000
- ACCP Assessment Institute attendee, 2002

American Society for Pharmacology and Experimental Therapeutics, 1998-present.

International Cannabinoid Research Society, 1998-2012.

American College of Neuropsychopharmacology, Associate Member, 2003-2009.

SERVICE:

National:

- Pharmacy Technician Certification Board, External Advisory Board, 2021-present
- Accreditation Council for Pharmacy Education, Evaluation Team Member, 2024-present
- Board of Directors, National Institute for Pharmaceutical Technology & Education, 2017-present (Board Chair, 2020-2021).
 - Strategic Planning Task Force, 2018-2022
 - Strategy Committee, Chair 2022-present
- AACP Mentoring Task Force 2022-present
- ASPET Board of Publications Trustees, 2016-2021
- Academic program reviewer for the University of Toronto School of Pharmacy, Nov. 2019.

- ASPET Neuropharmacology Division, Secretary-Treasurer, 2010-2012
- ASPET Graduate Recruitment and Education Committee, 2012-2016
- ASPET Committee on Diversity, 2008-2012
- AACP Paul Dawson Biotechnology Award Committee, 2009
- AACP Paul Dawson Biotechnology Award Committee, 2006

University:

- Provost Cabinet, 2023-present
- University Capital Campaign Planning Committee, 2024-present
- Action Council on Student Well-being, 2023-2024
- Search committee, Director, Purdue Center for Cancer Research, 2021-2023; Chair, 2023
- Protect Purdue Committee (COVID-19 Response) – Health Monitoring and Surveillance Team Lead, 2020-2023
- Purdue for Life Steering Committee, 2019
- Search committee, Leading Faculty in Drug Discovery (multi-college search), 2014-2016
- Search committee, Director, Purdue University Discovery Park, 2014-2015
- Strategic Research Initiatives Committee, 2010-2017
- Global Academic Affairs Committee, 2013-2017
- Chair, Metabolomic/Proteomic Profiling Facility, Bindley Bioscience Center, 2013-2015
- Graduate Education Advancement Committee, 2007-2010
 - Student Learning Outcomes and Assessment Workgroup, 2007-2010
 - Subcommittee on Developing self-assessment rubric
- Purdue University Graduate Council, 2007-2010
 - Chair, Area Committee C, 2008-2009 (responsible for reviewing and approving all new graduate degree programs and courses in engineering, chemistry, and physical sciences.)
- Search Committee, Dean, Graduate School, 2007-2008
- Search Committee for Dean of the College of Pharmacy, Nursing, and Health Sciences, 2006
- Review committee for IU-PU Collaborative Grant Applications, 2006
- Purdue University Neuroscience Executive Committee, 2003-2006
- Trask Innovation Award Committee, 2001 - 2007
- Search Committee for Dean of the College of Pharmacy, Nursing, and Health Sciences, 2002
- Multimedia Instructional Development Center Advisory Committee, 2000

College of Pharmacy:

- College of Pharmacy, Executive Committee, 2007-present
- College of Pharmacy, Murphy Award Committee, Chair, 2014-2017
- College Task Force on P3 Case Studies Course, 2016-2017
- Global Strategic Initiatives (Chair), 2015
- Dean's Advisory Council, Industry Partnerships session (Chair), 2014
- Search Committee for Head, Department of Pharmacy Practice (Chair), 2012-2014
- Task Force on Research Funding (Chair), 2013-2014
- Task Force on Website, Branding, and Key Messaging (Chair), 2013-2014

- Dean's Advisory Council, Innovations in Pharmacy Session (Moderator), 2013
- Information Technology Committee (Chair), 2010-2017
- ACPE Self Study Committee (Chair, Organization & Administration), 2010-2011
- Facilities Planning and Conceptual Design Committee, 2010-2011
- B.S. in Pharmaceutical Sciences Revision Task Force (Chair), 2009
- School of Pharmacy Pharm.D. Curriculum Committee, 2001 - 2009
- School of Pharmacy Graduate Programs and Policies Committee, 2004-2010 (Chair, 2007-2010)
- School of Pharmacy and Pharmaceutical Sciences Strategic Plan Committee, 2007-2008
- Search Committee, Assistant Dean for Assessment and Accreditation, 2007
- Integrated Laboratory Review Committee (Chair), 2004
- School of Pharmacy Readmissions and Academic Standards Committee, 2002 - 2007
- School of Pharmacy Assessment Committee, 2000 - 2005

Department of Medicinal Chemistry and Molecular Pharmacology (MCMP):

- MCMP Heads Advisory committee, 2005-2007
- MCMP Graduate Advisory committee, 2003-2007
- Director of Graduate Studies, 2004-2007
- MCMP Teaching Assistant Assignments and Scheduling, 2002-2007
- MCMP Systems Biology Faculty Search Committee, 2004 (Chair)
- MCMP Graduate Admissions committee, 2000 - 2004
- MCMP Task Force on Graduate Courses, Summer 2002
- MCMP Strategic Planning Task Force, 2001
- MCMP Graduate Recruiting and Marketing committee, 2000-2003
- MCMP Task Force on Graduate Courses, Summer 2002
- MCMP Curriculum Committee, 2000-2002
- MCMP Teaching Evaluation Committee, Summer 1999

Other Service, Engagement, or Community Activities:

- Coordinator for the Annual Purdue University Neuroscience Program Retreat, 2000 - 2003
- Co-advisor (with Alan Farkas, R.Ph.) to the Purdue American Pharmacists Association-Academy of Students of Pharmacy chapter, 1999 - 2004
- Faculty Mentor, MARC/AIM Summer Research Program, 2003
- Faculty Mentor, HORIZONS program, 2001
- School of Pharmacy Delegate to the Annual and Interim Meetings of the American Association of Colleges of Pharmacy, 2001
- Freshman Scholars Mentor, 1998-1999, 2000-2001
- St. Louis Philharmonic Orchestra, 1983-1988
- Trevecca Nashville Community Orchestra, 1988-1993; 1995-1998
- Emory Atlanta Orchestra, 1993-1995
- First United Methodist Church Foundation, Board member, 2003-2009 (President 2005-2007)
- Lafayette Elks Lodge #143, Board and Exalted Ruler, 2002-2006

- Faculty Sire (mentor), Purdue Musical Organization, Purdue Varsity Glee Club, 2014-present
- United Way of Greater Lafayette, Community Investment Committee, 2021-2024
- President's Advisory Council, University of Health Sciences and Pharmacy in St. Louis, 2022-2024
- Board of Directors for Franciscan Alliance Western Indiana (~300-bed hospital network). As part of this board, serve on the Quality Assurance and Performance Improvement (QAPI) committee. 2025-present
- Delegation member, LEX Indy (Leadership Exchange Indianapolis), September 2025. Washington, DC – sponsored by the Indy Chamber of Commerce.

SCIENTIFIC/EXPERT CONSULTANT:

University of Illinois-Chicago, Center for Botanical Dietary Supplements Research, 2001-2003
 Michael Best & Friedrich LLP, Chicago, IL, Expert Witness 2004-2008
 Stephenson Morow & Semler, Indianapolis, IN, Expert Witness, 2008
 Fillenwarth Dennerline Groth & Towe, LLP, Indianapolis, IN, Expert Witness, 2008-2009
 Tate Latham & Durant, Providence, RI, Expert Witness, 2012-2014
 Pepper Hamilton LLP, Philadelphia, PA, Expert Witness, 2015-2017
 Academic Advancement Partners, Presenter and Consultant, 2022-present
 Bowtie Therapeutics, Principal Consultant, 2025-present

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Barker, E.L., Burris, K.D., and Sanders-Bush, E. Phosphoinositide hydrolysis linked 5HT₂ receptors in rabbit choroid plexus fibroblasts. Brain Res., 552 (1991) 330-332.

Barker, E.L., Regulation of 5HT_{1C} receptor density, mRNA, and function by receptor agonists and antagonists. Dissertation. Vanderbilt University, Nashville, TN. (1993).

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Barker, E.L., Westphal, R.S., Schmidt, D., and Sanders-Bush, E., Constitutively active 5HT_{2C} receptors reveal novel inverse agonist activity of receptor ligands. J.Biol.Chem., 269 (1994) 11687-11690.

Demchyshyn, L.L., Pristupa, Z.B., Sugamori, K.S., **Barker, E.L.**, Blakely, R.D., Wolfgang, W.J., Forte, M.A., and Niznik, H.B. Cloning, expression, and localization of a chloride-facilitated cocaine-sensitive serotonin transporter from *Drosophila melanogaster*. Proc.Natl.Acad.Sci. U.S.A., 91 (1994) 5158-5162.

Barker, E.L., Kimmel, H.L. and Blakely, R.D. Chimeric human and rat serotonin transporters reveal domains involved in recognition of transporter ligands. Mol.Pharmacol. 46 (1994) 799-807.

Canton, H., Emeson, R.B., **Barker, E.L.**, Backstrom, J.R., Lu, J.T., Chang, M.S., and Sanders-Bush, E. Identification, molecular cloning, and distribution of a short variant of the 5-hydroxytryptamine_{2C} receptor produced by alternative splicing. Mol. Pharmacol., 50 (1996) 799-807.

Barker, E.L., and Blakely, R.D. Identification of a single amino acid, phenylalanine 586, that is responsible for high-affinity interactions of tricyclic antidepressants with the human serotonin transporter. Mol. Pharmacol. 50 (1996) 957-965.

Barker, E.L., Perlman, M.A., Adkins, E.M., Houlihan, W.J., Pristupa, Z.B., Niznik, H.D., and Blakely, R.D. High affinity recognition of serotonin transporter antagonists defined by species-scanning mutagenesis: An aromatic residue in transmembrane domain I dictates species-selective recognition of citalopram and mazindol. J.Biol.Chem., 273 (1998) 19459-19468.

Barker, E.L., Moore, K.R., Rakhshan, F. and Blakely, R.D. Transmembrane domain I contributes to the permeation pathway for serotonin and ions in the serotonin transporter. J. Neurosci., 19 (1999) 4705-4717.

Rakhshan, F., Day, T.A., Blakely, R.D. and **Barker, E.L.** Carrier-mediated uptake of the endogenous cannabinoid anandamide in RBL-2H3 cells, J.Pharmacol.Exp.Ther. 292 (2000) 960-967.

Blair, J.B., Kurrasch-Orbaugh, D., Marona-Lewicka, D., Cumbay, M.G., Watts, V.J., **Barker, E.L.**, and Nichols, D.E., Effect of ring fluorination on the pharmacology of hallucinogenic tryptamines, J. Med. Chem., 43 (2000) 4701-4710.

Adkins, E.M., **Barker, E.L.**, and Blakely, R.D. Interactions of tryptamine derivatives with serotonin transporter species variants implicate TMD I in substrate recognition, Mol.Pharmacol., 59 (2001) 514-523.

Day, T.A., Rakhshan, F., Deutsch, D.G. and **Barker, E.L.** Role of fatty acid amide hydrolase in the transport of the endogenous cannabinoid anandamide, Mol. Pharmacol. 59 (2001) 1369-1375.

Kurrasch-Orbaugh, D.M., Watts, V.J., **Barker, E.L.**, and Nichols, D.E. Serotonin 5-HT_{2A} receptor-coupled phospholipase C and phospholipase A₂ signaling pathways have different receptor reserves. J.Pharmacol.Exp.Ther. 304 (2003) 229-237.

Rodriguez, G.J., Roman, D.L., White, K.J., Nichols, D.E., and **Barker, E.L.** Distinct recognition of substrates by the human and *Drosophila* serotonin transporters, J.Pharmacol.Exp.Ther. 306 (2003) 338-346.

Burdette, J.E., Liu, J., Chen, S., Fabricant, D.S., Piersen, C., **Barker, E.L.**, Pezzuto, J.M., Mesecar, A., van Breemen, R.B., Farnsworth, N.R., and Bolton, J.L. Black cohosh acts as a mixed competitive ligand and partial agonist of the serotonin receptor 5-HT₇, J. Agr. Food Chem. 51 (2003) 5661 - 5670.

Roman, D. L., Walline, C.C., Rodriguez, G.J., and **Barker, E.L.**, Interactions of antidepressants with the serotonin transporter: A contemporary molecular analysis, Eur. J. Pharmacol. 479 (2003) 53-63.

Saldana, S.N. and **Barker, E.L.** Temperature and 3,4-methylenedioxymethamphetamine alter serotonin transporter-mediated dopamine uptake, Neurosci. Letters 354(2004) 209-212.

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Jarrahan, A., Watts, V.J. and **Barker, E.L.** D₂ Dopamine receptors modulate G_q-subunit coupling of the CB₁ cannabinoid receptor. J.Pharmacol.Exp.Ther. 308 (2004) 880-886.

McFarland, M.J., Porter, A.C., Rakhshan, F.R., Rawat, D.S., Gibbs, R.A., and **Barker, E.L.** A role for caveolae/lipid rafts in the uptake and recycling of the endocannabinoid anandamide. J.Biol.Chem. 279 (2004) 41991-41997.

White, K.J., Kiser, P.D., Nichols, D.E., and **Barker, E.L.** Engineered zinc-binding sites confirm proximity and orientation of transmembrane helices I and III in the human serotonin transporter. Prot. Science. 15 (2006) 2411-2422.

Gallardo-Godoy, A., Torres-Altora, M.I., White, K.J., **Barker, E.L.**, Nichols, D.E., 1-Methylpyridinium-4-(4-phenylmethanesulfonate) iodide, MTS-MPP⁺, a novel scanning cysteine accessibility method (SCAM) reagent for monoamine transporter studies. Bioorg Med Chem. 15 (2007) 305-311.

McFarland, M.J., Bardell, T.K., Yates, M.L., Placzek, E.A., and **Barker, E.L.** RNA interference-mediated knockdown of dynamin 2 reduces endocannabinoid uptake into neuronal dCAD cells. Mol Pharm. 74 (2008) 101-108.

Walline, C.C., Nichols, D.E., Carroll, F.I., and **Barker, E.L.** Comparative molecular field analysis using selectivity fields reveals residues in the third transmembrane helix of the serotonin transporter associated with substrate and antagonist recognition. J.Pharmacol.Exp.Ther. 325 (2008) 791-800.

Torres-Altora, M.I., White, K.J., Rodríguez, G.J., Nichols, D.E., and **Barker, E.L.** Helix XI contributes to the entrance of the serotonin transporter permeation pathway. Protein Sci. 17 (2008) 1761-1770.

Placzek, E.A., Okamoto, Y., Ueda, N., and **Barker, E.L.** Mechanisms for recycling and biosynthesis of endogenous cannabinoids anandamide and 2-arachidonylglycerol. J Neurochem. 107 (2008) 987-1000.

Torres-Altora, M.I., Kuntz, C.P., Nichols, D.E., and **Barker, E.L.** Structural analysis of the extracellular entrance to the serotonin transporter permeation pathway. J Biol Chem. 285 (2010) 15369-15379. PMID: 20304925

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Bardell, T.K. and **Barker, E.L.** Activation of TRPC6 channels promotes endocannabinoid biosynthesis in neuronal CAD cells. Neurochemistry Intl. 57 (2010) 76-83. PMID 20466028.

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Powers, M.S., Barrenha, G.D., Mlinac, N.S., **Barker, E.L.**, and Chester, J.A. The novel endocannabinoid uptake inhibitor, ly2183240, decreases conditioned fear-related behavior and increases conditioned alcohol-seeking behavior in mice selectively bred for high alcohol preference. Psychopharmacology 212 (2010) 571-583. PMID: 20838777.

Sun, L., Li, H.M., Seufferheld, M.J., Walters, K.R. Jr, Margam, V.M., Jannasch, A., Diaz, N., Riley, C.P., Sun, W., Li, Y.F., Muir, W.M., Xie, J., Wu, J., Zhang, F., Chen, J.Y., **Barker, E.L.**, Adamec, J., Pittendrigh, B.R. Systems-scale analysis reveals pathways involved in cellular response to methamphetamine. PLoS ONE. 6(2011) e18215. PMID: 21533132.

Zohrabi-Kalantari, V., Jarrahan, A., Bissantz, C., Bergstrom, D.E., **Barker, E.L.**, Link, A. 4-Aminocyclopentane-1,3-diols as Platforms for Diversity: Synthesis of Anandamide Analogs. Med Chem. 2012 Nov 16, PMID: 23157226

Han, B., Wright, R., Kirchhoff, A.M., Chester, J.A., Cooper, B.R., Davisson, V.J., **Barker, E.** Quantitative LC-MS/MS analysis of arachidonoyl amino acids in mouse brain with treatment of FAAH inhibitor. Anal Biochem. 432(2013)74-81. PMID: 23044255

Lee, H.J., Zhang, W., Zhang, D., Yang, Y., Liu, B., **Barker, E.L.**, Buhman, K.K., Slipchenko, L.V., Dai, M., Cheng, J.X. Assessing cholesterol storage in live cells and *c. elegans* by stimulated raman scattering imaging of phenyl-diyne cholesterol. Sci. Rep. 5 (2015) 7930. doi: 10.1038/srep07930 PMID: 25608867

Sealover, N.R., Felts, B., Kuntz, C.P., Jarrard, R.E., Hockerman, G.H., **Barker, E.L.**, Henry, L.K.. The external gate of the human and *Drosophila* serotonin transporters requires a basic/acidic amino acid pair for 3,4-methylenedioxymethamphetamine (MDMA) translocation and the induction of substrate efflux. Biochem Pharmacol. (2016) Sep 13. pii: S0006-2952(16)30268-4. doi: 10.1016/j.bcp.2016.09.006.

Kirchhoff, A.M., **Barker, E.L.**, Chester, J.A., Endocannabinoids and Fear-Related Behavior in Mice Selectively Bred for High or Low Alcohol Preference. Brain Sci. (2019) Sep 26;9(10):254. doi: 10.3390/brainsci9100254.

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Justice, J.B., Danek, K., Kable, J., **Barker, E.L.**, and Blakely, R.D. Voltammetric approaches to kinetics and mechanism of the norepinephrine transporter. In: Goldstein, D., ed. Catecholamines: Bridging basic science with clinical medicine. Volume 42 of Advances in Pharmacology (1997) 191-194.

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Barker, E.L. Neurotransmitter transporters. In: Offermanns, S., and Rosenthal, W., eds. Encyclopedic Reference of Molecular Pharmacology, Springer-Verlag, GmbH & Co., KG Berlin (2003) 636-641.

McFarland, M.J. and **Barker, E.L.** Anandamide Transport. Pharmacology & Therapeutics. 104 (2004) 117-135.

McFarland, M.J. and **Barker, E.L.** Lipid rafts: A nexus for endocannabinoid signaling? Life Sciences 77 (2005) 1640-1650.

White, K.J., Walline, C.C., and **Barker, E.L.** Serotonin transporters: Implications for antidepressant drug development. AAPS Journal 7(2005) E421-433.

McFarland, M.J., Terebova, E.A., and **Barker, E.L.** Detergent-Resistant Membrane Microdomains in the Disposition of the Lipid Signaling Molecule Anandamide. AAPS Journal 8 (2006) E95-100.

Placzek, E.A., Okamoto, Y., Ueda, N., and **Barker, E.L.** Membrane microdomains and metabolic pathways that define anandamide and 2-arachidonoyl glycerol biosynthesis and breakdown. Neuropharmacology. 55 (2008) 1095-1104.

Yates, M.L., and **Barker, E.L.** Organized Trafficking of Anandamide and Related Lipids. In: Litwack, G., ed. Vitamins & Hormones: Anandamide, an endogenous cannabinoids. 81 (2009) 25-53.

Yates, M.L., and **Barker, E.L.** Inactivation and biotransformation of the endogenous cannabinoids anandamide and 2-arachidonoylglycerol; Mini-review. Mol. Pharmacol. 76 (2009) 11-17.

Sealover, N.R. and **Barker, E.L.** Pathology of monoamine transporters. In: Advances in Neurobiology, ed. A. Lajtha Vol. 1 (2010) 169-193 .

Alexander SP, Benson HE, Faccenda E, Pawson AJ, Sharman JL, McGrath JC, Catterall WA, Spedding M, Peters JA, Harmar AJ; CGTP Collaborators, Abul-Hasn N, Anderson CM, Anderson CM, Araiainen MS, Arita M, Arthofer E, **Barker EL**, Barratt C, Barnes NM, Bathgate R, Beart PM, Belelli D, Bennett AJ, Birdsall NJ, Boison D, Bonner TI, Brailsford L, Bröer S, Brown P, Calo G, Carter WG, Catterall WA, Chan SL, Chao MV, Chiang N, Christopoulos A, Chun JJ, Cidlowski J, Clapham DE, Cockcroft S, Connor MA, Cox HM, Cuthbert A, Dautzenberg FM, Davenport AP, Dawson PA, Dent G, Dijksterhuis JP, Dollery CT,

Dolphin AC, Donowitz M, Dubocovich ML, Eiden L, Eidne K, Evans BA, Fabbro D, Fahlke C, Farndale R, Fitzgerald GA, Fong TM, Fowler CJ, Fry JR, Funk CD, Futerman AH, Ganapathy V, Gaisnier B, Gershengorn MA, Goldin A, Goldman ID, Gundlach AL, Hagenbuch B, Hales TG, Hammond JR, Hamon M, Hancox JC, Hauger RL, Hay DL, Hobbs AJ, Hollenberg MD, Holliday ND, Hoyer D, Hynes NA, Inui KI, Ishii S, Jacobson KA, Jarvis GE, Jarvis MF, Jensen R, Jones CE, Jones RL, Kaibuchi K, Kanai Y, Kennedy C, Kerr ID, Khan AA, Klienz MJ, Kukkonen JP, Lapoint JY, Leurs R, Lingueglia E, Lippiat J, Lolait SJ, Lummis SC, Lynch JW, MacEwan D, Maguire JJ, Marshall IL, May JM, McArdle CA, McGrath JC, Michel MC, Millar NS, Miller LJ, Mitolo V, Monk PN, Moore PK, Moorhouse AJ, Mouillac B, Murphy PM, Neubig RR, Neumaier J, Niesler B, Obaidat A, Offermanns S, Ohlstein E, Panaro MA, Parsons S, Pwrtwee RG, Petersen J, Pin JP, Poyner DR, Prigent S, Prossnitz ER, Pyne NJ, Pyne S, Quigley JG, Ramachandran R, Richelson EL, Roberts RE, Roskoski R, Ross RA, Roth M, Rudnick G, Ryan RM, Said SI, Schild L, Sanger GJ, Scholich K, Schousboe A, Schulte G, Schulz S, Serhan CN, Sexton PM, Sibley DR, Siegel JM, Singh G, Sitsapesan R, Smart TG, Smith DM, Soga T, Stahl A, Stewart G, Stoddart LA, Summers RJ, Thorens B, Thwaites DT, Toll L, Traynor JR, Usdin TB, Vandenberg RJ, Villalon C, Vore M, Waldman SA, Ward DT, Willars GB, Wonnacott SJ, Wright E, Ye RD, Yonezawa A, Zimmermann M. The Concise Guide to PHARMACOLOGY 2013/14: overview. *Br J Pharmacol*. (2013) Dec;170(8):1449-58. doi: 10.1111/bph.12444. PMID: 24528237

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Roman, D.L., Saldana, S.N., Carroll, F.I., Nichols, D.E., and **Barker, E.L.**, Distinct molecular recognition of psychostimulants by human and *Drosophila* serotonin transporters. *Experimental Biology '03 Abstracts*, Program No. 645.4, 2003.

Jarrahan, A. and **Barker, E.L.**, Differential regulation of adenylyl cyclase by D2 dopamine and CB1 cannabinoid receptors. *Experimental Biology '03 Abstracts*, Program No. 393.5, 2003.

McFarland, M.J., Porter, A.C., and **Barker, E.L.** Uptake of the endogenous cannabinoid anandamide by endocytic processes and accumulation in lipid rafts. *Experimental Biology '03 Abstracts*, Program No. 395.9, 2003.

Rodriguez, G.J. and **Barker, E.L.**, Role of transmembrane domain VII in recognition of substrates at serotonin transporters. *Experimental Biology '03 Abstracts*, Program No. 645.2, 2003.

White, K.J., Nichols, D.E., and **Barker, E.L.** Differences in amphetamine-induced currents at the human and *Drosophila* serotonin transporters. *Experimental Biology '03 Abstracts*, Program No. 645.3, 2003.

White, K.J., Kiser, P.D. and **Barker, E.L.** Engineered zinc-binding sites in the human serotonin transporter confirm proximity of domains I and III. *Experimental Biology '04 Abstracts*, Program No. 162.2, 2004.

McFarland, M.J., Rakhshan, F.R., Wilson, J.L. and **Barker, E.L.** Endocytic and cellular trafficking processes involved with uptake and metabolism of anandamide. *Experimental Biology '04 Abstracts*, Program No. 397.8, 2004.

Walline, C.C., Roman, D.L. and **Barker, E.L.** Comparative molecular field analysis reveals molecular aspects of species-specific recognition of antidepressants by serotonin transporters. Experimental Biology '04 Abstracts, Program No. 634.9, 2004.

White, K.J., and **Barker, E.L.** Engineered zinc-binding sites in the human serotonin transporter confirm proximity of transmembrane domains I and III. Experimental Biology '05 Abstracts, Program No. 312.11, 2005.

Walline, C.C., and **Barker, E.L.** Species-scanning mutagenesis implicates residues in the third transmembrane domain of SERT for antidepressant, cocaine, and amphetamine recognition. Experimental Biology '05 Abstracts, Program No. 312.12, 2005.

M.L. Yates and **E.L. Barker**, A role for the FAAH-interacting protein ERp57 in endogenous cannabinoid signaling. Experimental Biology '07 Abstracts, Program No. 885.1, 2007.

E.A. Terebova and **E.L. Barker**, The role of lipid rafts in the biosynthesis and recycling of endogenous cannabinoids. Experimental Biology '07 Abstracts, Program No. 885.2, 2007.

T.K. Bardell and **E.L. Barker**, Activation of TRPC3 promotes endocannabinoid synthesis. Experimental Biology '07 Abstracts, Program No. 885.3, 2007.

C.C. Walline, D.E. Nichols, and **E.L. Barker** Using comparative molecular field analysis selectivity fields to determine effects of point mutations on ligand recognition at serotonin transporters. Experimental Biology '07 Abstracts, Program No. 885.4, 2007.

M.I. Torres-Altora, D.E. Nichols and **E.L. Barker**, Structural verification of a human serotonin transporter homology model. Experimental Biology '07 Abstracts, Program No. 885.5, 2007.

N.R. Sealover and **E.L. Barker**, The role of the external gate in the reversal of the transport cycle of the serotonin transporter. Neuroscience Abstracts '09, 419.1

N.R. Sealover, C.P. Kuntz, and **E.L. Barker**, Model-driven Analysis of Antidepressant Binding Sites on Serotonin Transporters. ACNP Abstracts 2009, No. 85.

C.P. Kuntz, M.A. Lill, F.I. Carroll, **E.L. Barker**. Docking 3-phenyltropane analogs into an ensemble of serotonin transporter homology model conformations. Experimental Biology 2011. 1083.2.

Book Reviews:

Barker, E.L. Review of *Goodman & Gilman's The Pharmacological Basis of Therapeutics*, 10th edition. Joel G. Hardman and Lee E. Limbird, Editors. Pharm.Res., 19 (2002) 564-565.

Editorials:

Barker, E.L. Editorial, PharmRev. 68(2016)1-2. PMID: 26589412