Curriculum Vitae

Name:	Dr. Claus Schneider
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Education

09/77 – 05/86	*High school* Johann-Schöner-Gymnasium, Karlstadt, Germany
03/87 – 10/88	*Community service* (alternative military service)
10/88 – 12/92	*College* Universität Würzburg, Germany (Food Chemistry; 1. Staatsexamen)
04/94 – 07/96	Universität Würzburg, Germany (Philosophy, Linguistics, and Political Sciences)
01/93 – 10/96	*Graduate School* (Dissertation) Department of Food Chemistry, Universität Würzburg, Germany Supervisor: Prof. Dr. Peter Schreier; Title: "Über den Metabolismus von Fettsäurehydroperoxiden in Pflanzen: Untersuchungen zu Substraten und Produkten der Allenoxidsynthase (EC 4.2.1.92) aus Leinsamen (*Linum usitatissimum* L.)"
05/97	*Degree*: Ph.D. (Dr. rer. nat.)
01/97 – 07/97	*Internship* Landesuntersuchungsamt für das Gesundheitswesen Nordbayern, Erlangen, Germany (State food control laboratory)
08/97	*Degree*: Staatlich geprüfter Lebensmittelchemiker (2. Staatsexamen)
02/98 – 06/01	*Postgraduate Training* Department of Pharmacology, Vanderbilt University Medical School, Nashville, TN. Mentor: Alan R. Brash, Ph.D.

Academic Appointments

09/20 – present	Professor Department of Pharmacology, Vanderbilt University Medical School
10/13 – 08/20	Associate Professor Department of Pharmacology, Vanderbilt University Medical School
11/06 – 09/13	Assistant Professor Department of Pharmacology, Vanderbilt University Medical School

07/02 – 10/06	Research Assistant Professor Department of Pharmacology, Vanderbilt University Medical School
07/01 – 06/02	Research Instructor Department of Pharmacology, Vanderbilt University Medical School

Professional Activities

Extramural

- Member, NCI PDQ Integrative, Alternative, and Complementary Therapies Editorial Advisory Board, 2021-current.
- 2019/05 HLBP (09) 1 (workgroup), Ad hoc reviewer for NHLBI P01 grant (02/2019)
- Special Emphasis Panel/Scientific Review Group 2018/11 ZRG1 OTC-K (03) M; Internet Assisted Reviewer for R01 grants (NCI; CPSS study section member conflicts)
- Ad hoc reviewer for a grant proposal (OPUS) submitted to the National Science Center, Poland (09/2018)
- 2018/10 HLBP 1 (workgroup), Ad hoc reviewer for NHLBI P01 grant (05/2018)
- Special Emphasis Panel/Scientific Review Group 2018/05 ZRG1 OTC-E (04) M; Internet Assisted Reviewer for R01 grants (NCI; CDP study section member conflicts)
- Ad hoc reviewer for a grant proposal (OPUS) submitted to the National Science Center, Poland (09/2017)
- Special Emphasis Panel/Scientific Review Group 2017/10 ZRG1 OTC-K (04); Internet Assisted Reviewer for R01 grants (NCI; CDP study section member conflicts)
- Ad hoc reviewer of a grant proposal submitted to the Czech science Foundation, 06/2016.
- Special Emphasis Panel/Scientific Review Group 2015/05 ZCA1 RPRB-M (M2) S Omnibus R03 & R21 SEP-6 (NCI), 03/2015.
- Chair of the travel awards committee of the annual Winter Eicosanoid Meeting (Baltimore, MD), 2015-current.
- Special Emphasis Panel/Scientific Review Group 2015/05 ZAT1 SM (34) P; Internet Assisted Reviewer for P50 Botanical Centers (NCCAM), 10/2014.
- Ad hoc reviewer for NSF CAREER proposal, 09/2014.
- Reviewer/consultant for a book concept by Wiley-VCH "Encyclopedia of Molecular Nutrition", 12/2011.
- Ad hoc reviewer for FIRCA R03 application, 02/2011.
- Special Emphasis Panel/Scientific Review Group 2009/10 ZRG1 BCMB-P (58) R; Internet Assisted Reviewer for Challenge Grants, Panel 5, 06/2009.
- Israel Science Foundation, ad hoc reviewer for Individual Research Grant Application, 4/2009.
- Reviewer/consultant for a book concept by Wiley-VCH "Nutrition and Research – a dialogue", 2/2009; published as "Forschung und Ernährung - Ein Dialog", Schärer-Züblin, Esther V., editor.
- Unity through Knowledge Fund (UKF) of the Croatian Ministry of Science, Education, and Sports, 10/2008; Role: external ad hoc reviewer for the Research Cooperability Program.

- Emmy-Noether-Programm der DFG (Deutsche Forschungsgemeinschaft), 08/2008; Role: Ad hoc reviewer for grant application equivalent to NIH K-award.
- Berufungsverfahren W2-Professur "Lebensmittelchemie" an der Westfälischen Wilhelms Universität Münster, 02/2008; Role: external reviewer (to evaluate candidates for a professorship in food chemistry at the University of Münster, Germany).
- Member of the travel awards committee of the annual Winter Eicosanoid Meeting (Baltimore, MD), 2008-current. Chairman: 2013-current.
- CRDF Basic Research and Higher Education, 2006 Fellowship Competition; Role: Ad hoc reviewer.

Intramural

- Member, Faculty Appointments and Promotions Committee, 2022-2024
- Member of the Graduate Faculty Delegate Assembly, 2014-current
- Member of the Mass Spectrometry Core Shared Resource Advisory Committee, 2013-current
- Ad hoc reviewer for P&F applications submitted to the Vanderbilt Center in Molecular Toxicology, 02/2011.
- Pharmacology representative to the IGP Admissions Committee, 2011-2013.
- Member of the Pharmacology curriculum committee, 2011-current.

Membership in Professional Organizations

ASBMB, ACS, ASPET, AHA, Groupe Polyphenols

Journal peer reviews

Ad hoc reviewer for articles and reviews submitted to the following journals:

AAPS Journal
ACS Catalysis
ACS Chemical Biology
ACS Medicinal Chemistry Letters
ACS Omega
ACS Pharmacology & Translational Science
Amino Acids
Analytica Chimica Acta
Analytical Chemistry
American Journal of Clinical Nutrition
Applied Microbiology and Biotechnology
Archives of Biochemistry and Biophysics
Biochemical Pharmacology
Biochemistry
Biochimica et Biophysica Acta
BioFactors
BioMed Research International
Biometals
Bioorganic& Medicinal Chemistry Letters
Cancer Medicine
Cancer Prevention Research
Carcinogenesis
Chemical Communications
Chemical Research in Toxicology
Chemico-Biological Interactions
Circulation Research
Computational Toxicology
Current Pharmaceutical Design
European Biophysics Journal
European Journal of Biochemistry
European Journal of Pharmaceutical Sciences
European Journal of Pharmacology
Expert Opinion on Therapeutic Patents
FASEB Journal
FEMS Microbiology Letters
Food Chemistry
Food Research International
Free Radical Biology & Medicine
Free Radical Research
Frontiers in Microbiology

Frontiers in Pharmacology
Journal of Agricultural and Food Chemistry
Journal of Biological Chemistry
Journal of Clinical Investigation
Journal of Food Science
Journal of Investigative Dermatology
Journal of Lipid Research
Journal of Mass Spectrometry
Journal of Medicinal Chemistry
Journal of Organic Chemistry
Journal of Pharmacy and Pharmacology
Journal of Physical Chemistry
Journal of Plant Physiology
Journal of the American College of Nutrition
Letters in Organic Chemistry
Lipids
Marine Drugs
Medicinal Chemistry Communications
MicrobiologyOpen
Molecular Microbiology
Molecular Nutrition and Food Research
Molecular Pharmacology
Molecules
Natural Product Communications
Organic & Biomolecular Chemistry
PharmaNutrition
Phytochemistry
Plant Physiology
Planta
Progress in Lipid Research
Prostaglandins, Leukotrienes and Essential Fatty Acids
Prostaglandins and Other Lipid Mediators
Redox Biology
Redox Report
RSC Advances
Scientific Reports

Editorial board memberships

2020 – Associate Editor, *Free Radical Research*
2018 – Executive Editorial Board, *Molecular Nutrition and Food Research*
2016 – Editorial Board, *Journal of Biological Chemistry*
2013 – 2017 Associate Editor, *Molecular Nutrition and Food Research*
I was one of three editors that handled all submissions (total ≈1000 papers/y)
2004 – 2012: Senior Editor, *Molecular Nutrition and Food Research*

Honors and Awards

2021: Invited speaker, ODS 25th Anniversary Scientific Symposium, October 25-26, 2021.
2017: Keynote speaker, 13th Redox Life Innovation Symposium, Nara, Japan
2014: Best short oral presentation; 8th International Conference on Polyphenols Applications – ISANH Polyphenols 2014, Lisbon, Portugal, June 4-6, 2014.
2013: Department of Pharmacology Teaching Award

Teaching Activities

- BCHM 8336 (Biochemical and Molecular Toxicology), 3 hours, September 2023.
- PHAR 8322 (Scientific Communication Skills I), together with Sean Davies, Ph.D., 25 hours, September-November 2023.
- BCHM 8336 (Biochemical and Molecular Toxicology), 3 hours, September 2022.
- PHAR 8322 (Scientific Communication Skills I), together with Sean Davies, Ph.D., 25 hours, September-November 2022.

- BCHM 8336 (Biochemical and Molecular Toxicology), 3 hours, September 2021.
- PHAR 8322 (Scientific Communication Skills I), together with Sean Davies, Ph.D., 25 hours, September-November 2021.
- BCHM 8336 (Biochemical and Molecular Toxicology), 3 hours, September 2020.
- PHAR 8322 (Scientific Communication Skills I), together with Sean Davies, Ph.D., 25 hours, September-November 2020.
- PHAR 8320 and 8321 (Targets, Systems, and Drug Action), Blood, Immunity & Lung Physiology section and GI & Endocrinology section, 3 hours, January 2020.
- PHAR 8322 (Scientific Communication Skills I), together with Sean Davies, Ph.D., 25 hours, September-November 2019.
- PHAR 8320 and 8321 (Targets, Systems, and Drug Action), Blood, Immunity & Lung Physiology section and GI & Endocrinology section, 3 hours, January 2019.
- PHAR 8322 (Scientific Communication Skills I), together with Sean Davies, Ph.D., 25 hours, September-November 2018.
- PHAR 8320 and 8321 (Targets, Systems, and Drug Action), Blood, Immunity & Lung Physiology section and GI & Endocrinology section, 3 hours, January 2018.
- PHAR 322A and 322B (Scientific Communications I & II), together with Sean Davies, Ph.D., 25 hours, September-December 2017.
- PHAR 8320 and 8321 (Targets, Systems, and Drug Action), Blood, Immunity & Lung Physiology section and GI & Endocrinology section, 3 hours, January 2017.
- PHAR 322A and 322B (Scientific Communications I & II), together with Sean Davies, Ph.D., 25 hours, September-December 2016.
- PHAR 8320 and 8321 (Targets, Systems, and Drug Action), Blood, Immunity & Lung Physiology section as well as GI & Endocrinology section, 3 hours, October/November 2016
- PHAR 322 (Scientific Communications I & II), together with Sean Davies, Ph.D., and Qi Zhang, Ph.D., 25 hours, September-November 2015.
- PHAR 320 (Targets, Systems, and Drug Action), GI/liver section, together with Alan Brash, Ph.D., 5 hours, September 2015
- PHAR 322 (Scientific Communications I & II), together with Sean Davies, Ph.D., and Gregg Stanwood, Ph.D., 25 hours, August-December 2014.
- PHAR 320 (Targets, Systems, and Drug Action), GI/liver section, together with Alan Brash, Ph.D., 5 hours, October 2014
- PHAR 322 (Scientific Communications I & II), together with Sean Davies, Ph.D., and Gregg Stanwood, Ph.D., 25 hours, August-December 2013.
- PHAR 320 (Targets, Systems, and Drug Action), GI/liver section, together with Alan Brash, Ph.D., 5 hours, October 2013
- IGP-Minimester "Prostaglandins and other lipid mediators"; January/ February 2013 (together with Sean Davies, Ph.D. and Richard Breyer, Ph.D.).
- PHAR 322 (Scientific Communications I & II), together with Sean Davies, Ph.D., and Gregg Stanwood, Ph.D., 25 hours, August-December 2012.
- IGP-Minimester "Prostaglandins and other lipid mediators"; teaching 6 of 16 hours, January/ February 2012 (together with Sean Davies, Ph.D. and Richard Breyer, Ph.D.).
- PHAR 320 (Targets, Systems, and Drug Action), GI/liver section, together with Alan Brash, Ph.D., 5 hours, October 2012
- PHAR 323 (Scientific Communications II) – I developed the concept for this course together with Sean Davies, Ph.D., December 2011. This course is targeted at first year Pharmacology graduate students and provides a framework for preparation of an NIH F31 or equivalent fellowship application.

- PHAR 322 (Scientific Communications I), first part, together with Chang Chung, Ph.D., 25 hours, Sept./Oct. 2011
- PHAR 320 (Targets, Systems, and Drug Action), GI/liver section, together with Alan Brash, Ph.D., 5 hours, September 2011
- IGP-Minimester "Eicosanoids and related lipid mediators", teaching 7 of 16 hours, March/April 2011; I developed the course together with Sean Davies, Ph.D.
- PHAR 320 (Targets, Systems, and Drug Action), GI/liver section (together with Alan Brash, Ph.D.), 4 hours, October 2010
- PHAR 320 (Targets, Systems, and Drug Action), GI/liver section (together with Alan Brash, Ph.D.), 4 hours, November 2009

Research Supervision

current

- Paula Brazao Luis, PhD (Lisbon, Portugal, 2011), Postdoctoral Fellow, 05/2013- (AHA postdoctoral fellowship award, 01/2016-12/2017); promoted to research instructor, 05/2018

former

- Tara Isanaka, VU undergraduate, 08/2020-08/2022
- Fumie Nakashima, PhD (Nagoya, Japan, 2018), Postdoctoral Fellow, 11/2018-01/2022
- Bryant Reynolds, VU Undergraduate, 02/2020-08/2021
- Dominic Golding, VU REU summer student, 05/2019-07/2019
- Abdul-Musawwir Alli-Oluwafuyi, visiting graduate student (Fulbright scholar) from the University of Ilorin, Nigeria, Department of Pharmacology, 09/2017-06/2018
- Akil I. Joseph, PhD (Georgetown, 2015), Postdoctoral Fellow, 04/2015-10/2018; next position: staff scientist, Intertek Champaign Laboratories, Champaign, IL.
- Juan Antonio Gimenez Bastida, Ph.D. (Murcia, Spain, 2012), Postdoctoral Fellow, 10/2014-05/2018; (AHA postdoctoral fellowship award, 07/2016-05/2018); next position: postdoc, CEBAS Murcia, Spain.
- Rebecca Edwards, PhD (Birmingham, UK, 2013), Postdoctoral Fellow, 01/2014-10/2017
- Sheryl Vermudez, IGP rotation student, 01/2017-02/2017
- Jade Williams, QCB rotation student, 11/2016-12/2016
- Marwa Sharif, Undergraduate student, Chemistry, TSU, 10/2015-4/2016
- Katie C. Sprinkel, Master's Student, Analytical Pharmacology, 11/2012-10/2015
- Blake Dieckmann, Graduate Student, Pharmacology, 06/2014-02/2015 (lab switch to Ambra Pozzi, VUMC Nephrology; left the program with MA degree 11/2016)
- Odaine Gordon, Graduate Student, Pharmacology, 05/2009-03/2014 (NIH NRSA stipend, 09/2012-03/2014); then a postdoc in my lab until 08/2014; next position: staff scientist, Covance, Madison, WI
- Courtney Smith, ASPET summer student, Pharmacology SURF program, 06/2014-08/2014
- David Evan Montanez, VU undergraduate, 08/2013-07/2014

- Leigh-Ann Graham, Ph.D. (Wake Forest, Chemistry, 2012), Postdoctoral Fellow, 06/2012-06/2014; next position: postdoc, CDC Atlanta)
- Marc Singleton, VU undergraduate (Chemistry), 01/2014-04/2014
- Blake Dieckmann, CPB rotation student, 01/2014-02/2014
- Jaclyn P. Souder, ASPET summer student, Pharmacology SURF program, 06/2013-08/2013
- Paolo Varuzza, Undergraduate Student (Pavia University, Italy), 01/2013-06/2013
- Ebrahim Tahaei, IGP rotation student, 03/2013-04/2013
- Charles S. Buess, ASPET summer student, Pharmacology SURF program, 06/2011-08/2011
- David M. Stevens, IGP rotation student, 11/2009-12/2009; then a Pharmacology graduate student with Eva Harth, Ph.D., Department of Chemistry, Vanderbilt
- Surafel Mulugeta, ASPET summer student, Pharmacology SURF program, 06/2009-08/2009
- Noemi Tejera Hernandez, Ph.D. (La Laguna University, Spain, 2007), Postdoctoral Fellow, 04/2009-12/2011; next position: Senior Research Associate, Medical School at University of East Anglia, Norwich, UK
- Jing Jin, rotation student in the Vanderbilt IGP program, 03/2009-04/2009; then a Pharmacology graduate student with Alan Brash, Ph.D.
- Odaine Gordon, rotation student in the Vanderbilt IMSD program, 08/2008-12/2008
- Takashi Suzuki, Ph.D. (Osaka University, Japan, 2003), Postdoctoral Fellow, 04/2007-12/2011; next position: Research Instructor, Department of Pathology, VUMC
- Markus Griesser, Ph.D. (TU Munich, Germany, 2006), Postdoctoral Fellow, 04/2007-01/2009; next position: Chemist, Consumer Safety, Crop Protection, BASF Germany

Dissertation committees
current:

- Danielle Penk (Mentor: Gary Sulikowski/Steve Townsend, Chemistry), 2020-
- Jonah Zarrow (Mentor: Sean Davies, Pharmacology), 2019-

completed:

- Alexander Allweil (Mentor: Gary Sulikowski, Chemistry), 2019-2021
- Corey Seacrist (Mentor: Ray Blind, Pharmacology), 2017- 2020
- Ron Shah (U. Ottawa, Chemistry; mentor: Derek Pratt; external examiner, 11/2019)
- Eric Gonzalez (Mentor: Fred Guengerich, Biochemistry), 2013-2017
- Katie Sprinkel (Mentor: Claus Schneider, Pharmacology, 2013-2015
- Robert Boer (Mentor: Gary Sulikowski, Chemistry), 2012-2015
- Waddah Katrangi (Mentor: Adam Seegmiller, Pathology), 2011-06/2014
- Odaine Gordon (Mentor: Claus Schneider, Pharmacology), 2011-03/2014
- Jing Jin (Mentor: Alan Brash, Pharmacology), 2010-08/2013 (Committee chair)
- Chris Browne (Mentor: Andrew Link, Biochemistry), 2010-02/2013
- Yuxiang Zheng (Mentor: Alan Brash, Pharmacology), 2008-10/2010
- Matt Mazalouskas (Mentor: Brian Wadzinski, Pharmacology), 2007-03/2014
- Christal Sohl (Mentor: Fred Guengerich, Biochemistry), 2007-06/2010

Hosting of visiting scientists

- Abdul-Musawwir O. Alli-Oluwafuyi, visiting Fulbright scholar and graduate student in pharmacology at the University of Ilorin, Nigeria, 09/2017-05/2018
- Fumie Nakashima, visiting graduate student from Nagoya University, Japan, 08/2016-10/2016
- Prof. Takahiro Shibata and his graduate student, Fumie Nakashima, Nagoya University, Japan, 08/2015-10/2015

Research Program

Active grant awards:
1R35GM144091-01 (Claus Schneider, PI) 08/01/2007-07/31/2027
NIH/NIGMS (≈$300,000/year)
Novel pathways in eicosanoid biosynthesis and metabolism
The goals of this project are to identify and characterize novel eicosanoid lipid mediators and to explore novel pathways in the metabolism of eicosanoids.

Completed:

3R01GM076592-12 (Claus Schneider, PI) 01/01/2007-04/30/2022
NIH/NIGMS (≈$200,000/year)
Convergence of the COX-2 and 5-lipoxygenase pathways
The major goals of this project are to analyze the formation and biological activity of a novel family of eicosanoids that is derived from the sequential oxygenation of arachidonic acid by 5-lipoxygenase and COX-2.

3R01GM118412-02 (Claus Schneider, PI) 09/15/2017-07/31/2021
NIH/NIGMS **(**$217,019/year)
Novel Pathways of Eicosanoid Metabolism
We propose to study how certain chemical mediators of pain and inflammation are broken down in the human body. These mediators are formed from fatty acids and the targets of common anti-inflammatory and anti-pain medications. Our studies will contribute to a novel understanding of how these drugs work and what processes they affect in the body.

3R01GM076592-11S1 and **3R01GM118412-02S1** Schneider (PI) 05/01/2019-04/30/2020
NIH/NIGMS (ca. $108,000)
Administrative supplements for the purchase of a high-sensitivity mass spectrometer in conjunction with a supplement awarded to Dr. Guengerich in the Dept. of Biochemistry, VUMS.

5R01GM115722-03 (Sulikowski) 07/01/2015 - 04/30/2020(NCE)
NIH/NIGMS
Chemistry and Biology of Novel Arachidonic Acid Metabolites
We propose the total synthesis of two families of novel arachidonic acid metabolites discovered at Vanderbilt University with importance in inflammation and pulmonary arterial hypertension. In

collaboration with the labs responsible for the discovery of these metabolites we outline a program enabled by chemical synthesis to advance the further study of these metabolites with possible clinical application.

VUMC44332 (R01CA174926) (Claus Schneider, Site PI) 08/01/2014-07/31/2020(NCE)
NIH/NCI ($19,968/year)
Exploiting the Tumor Microenvironment to Block Breast Cancer Bone Metastasis
The objective is to understand signaling pathways and active metabolites responsible for curcuminoid inhibition of breast cancer bone metastasis progression using pre-clinical models. Dr. Schneider is providing curcumin metabolites for activity testing by Dr. Funk.

5R01 AT006896-05 (Claus Schneider, PI) 01/01/13-12/31/18 (NCE)
NIH/NCCIH ($≈270,000/year)
Oxidative transformation of the dietary cancer chemopreventive agent curcumin
The project is concerned with investigation of the biochemistry of oxidative transformation of curcumin, to develop methods for the detection of curcumin and its metabolites in vivo, and to study the biological consequences of oxidative metabolism of curcumin.

R01 AT006896-04S1 (Claus Schneider, PI)
NIH/NCCIH
This is an Administrative Supplement to the parent R01 with the goal to validate a quantification method of curcumin and its metabolites.

5R34 AT007837-02 (Claus Schneider, Site PI) 09/01/13-08/31/16
NIH/NCCIH
Curcuma longa L. in Rheumatoid Arthritis (CLaRA): Clinical Planning Study
This application proposes a pilot randomized controlled trial of two doses of a commercial curcuminoid formulation (Meriva) for the treatment of rheumatoid arthritis patients who have failed to respond to methotrexate treatment. Dr. Schneider is a co-investigator on this project.

5P01 GM015431-47 (L. Jackson Roberts, PI) 09/30/11-06/30/16
NIH/NIGMS
Research Center for Pharmacology and Drug Toxicology
Dr. Schneider is Co-investigator of Project 5, "Mechanisms of Leukotriene, Resolvin, and Protectin Biosynthesis." This study seeks to clarify how enzymes called lipoxygenases form so-called lipid mediators that are involved in either promoting or combating inflammation.

R01 GM074888-05 (Alan. R. Brash, PI) 04/01/10-03/31/16 (NCE)
NIH/NIGMS
Novel Catalases and Their Products
The objective is to characterize the biochemical activity and physiological role of a novel class of catalases with an unusually small molecular weight. Dr. Schneider is a co-investigator on this project.

5R01 AR051968-07 (Alan R. Brash, PI) 07/01/12-06/30/17
NIH/NIAMS
Linking Lipoxygenases with Essential Fatty Acids and Epidermal Barrier Formation

This study seeks to clarify how lipid enzymes called lipoxygenases are involved in forming this water barrier. Understanding this will help explain how other enzymes cooperate in the process and allow for rational treatment of the ichthyoses. Dr. Schneider is a co-investigator on this project.

5R03 CA159382-02 (Claus Schneider, PI) 09/05/12-08/31/15 (NCE)
NIH/NCI ($50,000/year)
Pharmacokinetics and Metabolism of Oxidized Curcumin
The goal of the project is detection and quantification of curcumin and its oxidative and reductive metabolites in vivo.

Vanderbilt Institute of Chemical Biology (Schneider) 09/01/10-08/31/12
Dr. Schneider has a Pilot project grant: "Regulation of IKKβ by Oxidative Metabolites of Curcumin". ($40,000)

P30 DK058404 (Richard Peek, PI) 06/01/10-05/31/12
NIH/NIDDK ($10,000/year)
Digestive Diseases Research Center
Dr. Schneider is the PI of a pilot project entitled: "Oxidative metabolites of curcumin in the mouse intestine".

5P50 CA095103 (Robert J. Coffey, PI) 08/01/10-07/31/11
NIH/NCI ($25,000)
NCI SPORE in GI Cancer
Dr. Schneider is the PI of a pilot project entitled: "Oxidative metabolites of curcumin in the mouse intestine".

5R01 GM076592-01A1 (Claus Schneider, PI) 01/01/07-12/31/11
NIH/NIGMS ($≈185,000/year)
Convergence of the COX-2 and 5-lipoxygenase pathways
The major goals of this project are to analyze the formation and biological activity of a novel family of eicosanoids that is derived from the sequential oxygenation of arachidonic acid by 5-lipoxygenase and COX-2.

3R01 GM076592-03S1 (Claus Schneider, PI) 09/30/09-08/31/10
NIH/NIGMS ($55,053)
Convergence of the COX-2 and 5-lipoxygenase pathways
ARRA-funded Administrative Supplement for purchase of an Agilent 1200SL UPLC diode array system.

5R01 AR051968-05 (Alan. R. Brash, PI) 07/01/05-06/30/10
NIH/NIAMS
A Lipoxygenase Pathway in Epidermal Differentiation
The goals of this project are to characterize the functional roles of two lipoxygenase genes, 12R-LOX and eLOX3, mutated in a form of inherited ichthyosis and implicated in the differentiation of normal epidermis. Dr. Schneider is a co-investigator on this project.

DOD BC063074 (Claus Schneider, PI) 08/01/07-07/31/09
CDMRP/BCRP Concept Award ($75,000)

Discovery and Role of a Novel Eicosanoid Family in Breast Cancer
The objective is to identify and quantify products that result from the convergent oxygenation of arachidonic acid by 5-lipoxygenase and COX-2 in breast cancer cell lines.

5P30 ES000267-40 (F.P. Guengerich, PI) 04/01/07-03/31/08
NIH/NIEHS ($40,000)
Dr. Schneider has a Pilot project grant (entitled "Oxidative metabolism of the cancer chemopreven-tive agent curcumin") within the Center in Molecular Toxicology.

5R01 GM053638-08 (Alan. R. Brash, PI**)** 09/01/01-08/31/06
NIH/NIGMS
Novel Oxygenations of Arachidonic Acid
The major goals of this project are to elucidate the function of a novel lipoxygenase and to elucidate the enzyme-substrate interactions that distinguish the activities of the different lipoxygenase and cyclooxygenase enzymes. Dr. Schneider is a co-investigator on this project.

5P30 AR041943-12 (George P. Stricklin, PI) 05/01/04-04/30/06
NIH/NIAMS
Skin Diseases Research Core Center
Dr. Schneider is the PI of a Pilot & Feasibility project ("Physiological Role of a Nuclear Lipoxygenase") within this grant.

Publications and Presentations

1. Articles in refereed journals

1. Herderich, M., Richling, E., Roscher, R., **Schneider, C**., Schwab, W., Humpf, H.-U., and Schreier, P. (1997) Application of atmospheric pressure ionization HPLC-MS-MS for the analysis of natural products, *Chromatographia* 45, 127-132.
2. **Schneider, C.**, Schreier, P., and Herderich, M. (1997) Analysis of lipoxygenase-derived fatty acid hydroperoxides by electrospray ionization tandem mass spectrometry, *Lipids* 32, 331-336.
3. **Schneider, C.**, Wein, M., Harmsen, D., and Schreier, P. (1997) A fatty acid α-ketol, a product of the plant lipoxygenase pathway, is oxidized to 3(*Z*)-dodecendioic acid by a bacterial monooxygenase, *Biochem. Biophys. Res. Commun*. 232, 364-366.
4. **Schneider, C.**, Schreier, P., and Humpf, H.-U. (1997) Exciton-coupled circular dichroism (ECCD) in acyclic hydroxylated dienes: A sensitive method for the direct stereochemical assignment of lipoxygenase products, *Chirality* 9, 563-567.
5. **Schneider, C.** and Schreier, P. (1998) Catalytic properties of allene oxide synthase from flaxseed (*Linum usitatissimum* L.), *Lipids* 33, 191-196.
6. **Schneider, C.**, Amberg, A., Feurle, J., Ross, A., Roth, M., Toth, G., and Schreier, P. (1998) 2-[4'-Hydroxy-3'-methoxy)-phenoxy]-4-(4"-hydroxy-3"-methoxy-phenyl)-8-hydroxy-6-oxo-3-oxabicyclo[3.3.0]-7-octene: Unusual product of the soybean lipoxygenase-catalyzed oxygenation of curcumin, *J. Mol. Catal. B: Enzymatic* 4, 219-227.

7. **Schneider, C.** and Brash, A.R. (2000) Stereospecificity of hydrogen abstraction in the conversion of arachidonic acid to 15*R*-HETE by aspirin-treated cyclooxygenase-2. Implications for the alignment of substrate in the active site, *J. Biol. Chem.* 275, 4743-4746.

8. Rowlinson, S.W., Crews, B.C., Goodwin, D.C., **Schneider, C.**, Gierse, J.K., and Marnett, L.J. (2000), Spatial requirements for 15-(R)-hydroxy-5Z,8Z,11Z,13E-eicosatetraenoic acid synthesis within the cyclooxygenase active site of murine COX-2. Why acetylated COX-1 does not synthesize 15-(R)-HETE, *J. Biol. Chem.* 275, 6586-6591.

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101. Gobert, A.P., Latour, Y.L., Asim, M., Barry, D.P., Allaman, M.M., Finley, J.F., Smith, T.M., McNamara, K.M., Singh, K., Sierra, J.C., Luis, P.B., **Schneider, C.**, Washington, M.K., Piazuelo, M.B., Zhao, S., Coburn, L.A., and Wilson, K.T. (2022) Protective role of spermidine in colitis and colon carcinogenesis, *Gastroenterology*, 162, 813-827. PMC8881368

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104. Latour, Y.L., Sierra, J.C., Finley, J.L., Asim, M. Barry, D.P., Allaman, M.A., Smith, T.M., McNamara, K.M., Luis, P.B., **Schneider, C.**, Jacobse, J., Goettel, J.A., Calcutt, M.W., Rose, K.L., Schey, K.L., Milne, G.L., Delgado, A.G., Piazuelo, M.B., Paul, B.D., Snyder, S.H., Gobert, A.P., and Wilson, K.T. (2022) Cystationine-γ-lyase exacerbates *Helicobacter pylori* immunopathogenesis by promoting macrophage metabolic remodeling and activation, *JCI Insight*, 7, e155338. PMC9309056

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107. Brash, A.R., Noguchi, S., Boeglin, W.E., Calcutt, M.W., Stec, D.F., **Schneider, C.,** and Meyer, J.M. (2023) Two C18 hydroxy-cyclohexenone fatty acids from mammalian epidermis: Potential relation to 12R-lipoxygenase and covalent binding of ceramides, *J. Biol. Chem.*, 299, 104739. PMC10209020

108. Luis, P.B., Nakashima, F., Presley, S.H., Sulikowski, G.A., and ***Schneider, C.** (2024) Dry heating of curcumin in the presence of basic salts yields anti-inflammatory dimerization products, submitted.

(* corresponding author)

2. Book chapters

1. Schneider C. and Davies, S.S. (2015) Non-enzymatic mechanisms of lipid oxidation; in: Lipid oxidation in health and disease; Spickett, C.M. and Forman, H.J., eds.; Taylor and Francis.
2. Schneider C. (2019) Understanding the misunderstood: Products and mechanisms of the degradation of curcumin. In: Recent Advances in Polyphenol Research, vol. 6.; edited by Heidi Halbwirth, Karl Stich, Veronique Chenier, and Stephane Quideau; John Wiley & Sons Ltd.

3. Book reviews, Editorials, and other non-peer reviewed work

1. MNF Books: Stress, Obesity, and Metabolic Syndrome; edited by George P. Chrousos and Constantine Tsigos; Annals of the New York Academy of Sciences, Volume 1083; book review; *Mol. Nutr. Food Res.* 51 (2007), 1554.
2. MNF Books: Nutrition and Arthritis; by Margaret Rayman and Alison Callaghan; book review; *Mol. Nutr. Food Res.* 52 (2008), 502.
3. MNF Books: Nutraceuticals, Glycemic Health and Type 2 Diabetes; edited by Vijai K. Pasupuleti and James W. Anderson, IFT Press, Wiley-Blackwell; book review; *Mol. Nutr. Food Res.* 53 (2009), 790.
4. Schneider, C. (2010) Lipids in health and disease (Editorial), *Mol. Nutr. Food Res.* 54, Suppl. 1:S5.
5. Schneider, C. (2013) Lipidomics: Approaches and applications in nutrition research (Editorial). Editor for a special issue on "Lipidomics", *Mol. Nutr. Food Res.* 57, 1305.
6. Humpf, H.U., Schneider, C., Stevens, J.F. (2014) Functional Food – Where do we go? (Editorial), *Mol. Nutr. Food Res.* 58, 5.
7. Gordon, O. and Schneider C. (2014) Spice of Life; Chemistry and Industry Magazine, Society of Chemical Industry; issue 2/2014, 36-39.
8. Humpf, H.U., Schneider, C., Stevens, J.F. (2015) Scoping dietary supplements versus botanical medicines (Editorial), *Mol. Nutr. Food Res.* 59, 5-6.
9. Humpf, H.U., Schneider, C., Stevens, J.F. (2016) Obesity, cancer and nutrition, gut microbiota - Special Issues 2016 (Editorial), *Mol. Nutr. Food Res.* 60, 5-6.
10. Humpf, H.U., Schneider, C., Stevens, J.F. (2017) Hot topics in 2017 – Gut microbiota, whole grains and health (Editorial), *Mol. Nutr. Food Res.* 61, 5-6.
11. Humpf, H.U., Schneider, C., Stevens, J.F., Mayer, C. (2018) MNF's upcoming topics, structure, and standards in 2018 (Editorial), *Mol. Nutr. Food Res.* 62, 1870014.
12. Nakashima, F., Schneider, C. (2022) Novel eicosanoids from the COX-2 reaction: 5-hydroxy-prostaglandins, *ASBMB Today*, June/July2022, 20-21.

4. Presentations at Conferences and Institutions Outside Vanderbilt

1. “A novel monooxygenase route contrasts with the P450 pathway to a plant wound hormone”; The 1998 Midwest P450 Meeting, September 10-11, 1998, Purdue University, West Lafayette, IN.

2. “Analysis of cyclooxygenase-substrate interactions using stereospecifically labeled arachidonic acids”; 6th International Conference on Eicosanoids and Other Bioactive Lipids in Cancer, Inflammation and Related Diseases, September 12-15, 1999, Boston, MA.

3. “A fatty acid α-ketol is oxidized to a plant wound hormone by a bacterial monooxygenase”; Department of Biology, University of Lausanne, Switzerland, June 8, 2000. (*Invited by Edward Farmer, PhD*)

4. “Mechanisms of formation of 4-hydroxynonenal”; Institut für Pflanzengenetik und Kulturpflanzenforschung, Gatersleben, Germany, June 13, 2000. (*Invited by Dr. Ivo Feussner*)

5. “Stereospecificity of hydrogen abstraction in cyclooxygenase catalysis”; German Cancer Research Institute (Deutsches Krebsforschungszentrum), Heidelberg, Germany, June 16, 2000. (*Invited by Dr. Gerhard Fürstenberger*)

6. “Cloning and characterization of a fatty acid hydroperoxide lyase – A model for formation of cytotoxic lipid peroxidation products”; Department of Bioorganic Chemistry, Tallinn Technical University, Tallinn, Estonia, August 28, 2001. (*Invited by Nigulas Samel, PhD*)

7. “Product formation by cyclooxygenases”; Fakultät für Biologie, Universität Konstanz, Germany, September 6, 2001. (*Invited by Dr. Volker Ulrich*)

8. “What determines prostaglandin C-15 hydroxyl configuration?”; 7th International Conference on Eicosanoids and Other Bioactive Lipids in Cancer, Inflammation and Related Diseases, Nashville, TN, October 14-17, 2001.

9. “Control of stereochemistry in cyclooxygenase and lipoxygenase reactions”; 4th Annual Winter Eicosanoid Conference, Baltimore, MD, March 10-13, 2002.

10. “Mechanisms of formation of 4-hydroxynonenal”; International Symposium on Recent BioMedical Advances in Eicosanoid Research, Berlin, Germany, August 22-24, 2002.

11. “Novel elements of stereocontrol in cyclooxygenase catalysis”; 8th International Conference on Eicosanoids and Other Bioactive Lipids in Cancer, Inflammation and Related Diseases, Chicago, IL, September 7-10, 2003.

12. “Control of prostaglandin synthesis by COX-1 and COX-2”; Department of Vascular Biology and Thrombosis Research, Medical University of Vienna, Vienna, Austria, August 2, 2004. (*Invited by Dr. Norbert Leitinger*)

13. “Formation of 4-hydroxynonenal during non-enzymatic lipid peroxidation: Mechanistic Studies with perplexing results”; F. Hofmann-La Roche, Basel, Switzerland, August 17, 2004. (*Invited by Dr. Michael Otteneder*)

14. “Oxygenation of 5*S*-HETE by COX-2 to a prostaglandin-like cyclic endoperoxide”; 9th International Conference on Eicosanoids and Other Bioactive Lipids in Cancer, Inflammation and Related Diseases, San Francisco, CA, September 11-14, 2005.

15. “Novel cyclooxygenase enzymes and substrates”; German Cancer Research Institute (Deutsches Krebsforschungszentrum), Heidelberg, Germany, October 6, 2005. (*Invited by Dr. Gerhard Fürstenberger*)

16. "Structural insight into prostaglandin synthesis by cyclooxygenases"; 25th Anniversary Conference, Chair of Food Chemistry, Universität Würzburg, Germany, October 14, 2005. (*Invited by Dr. Peter Schreier*)

17. "A connection in biosynthesis between 5-lipoxygenase and COX-2"; The 8th Annual Winter Eicosanoid Conference, Baltimore, MD, March 12-15, 2006.

18. "Novel Insight into the mechanisms of formation of 4-hydroxynonenal"; 2nd International Conference on Non-mammalian Eicosanoids, Bioactive Lipids and Plant Oxylipins, Berlin, Germany, May 24-27, 2006.

19. "Convergence of the 5-lipoxygenase and COX-2 pathways"; Department of Pharmacology, Medical College of Wisconsin, Milwaukee, WI, August 17, 2006. (*Invited by William Campbell, PhD*)

20. "Novel substrates and products in cyclooxygenase catalysis"; Department of Chemistry, The University of Toledo, Toledo, OH, September 20, 2006. (*Invited by Max Funk, PhD*)

21. "Novel substrates and products in COX-2 catalysis: endogenous lipid mediators and food-derived chemopreventive agents"; Seminar at the Sonderforschungsbereich 630, Universität Würzburg, Germany, December 7, 2007. (*Invited by Dr. Ulrike Holzgrabe*)

22. "Routes to formation of 4-hydroxynonenal during lipid peroxidation"; Lipid Peroxidation 2008, Karuizawa, Japan, October 15-17, 2008. (*Invited by Koji Uchida, PhD*)

23. "Novel eicosanoids derived from convergence of the 5-LOX and COX-2 pathways"; The 11th Annual Winter Eicosanoid Conference, Baltimore, MD, March 8-11, 2009.

24. "Recent investigations into the convergence of the 5-LOX and COX-2 pathways"; 11th International Conference on Bioactive Lipids in Cancer, Inflammation and Related Diseases, Cancun, Mexico, October 25-28, 2009.

25. "Biosynthesis and role of eicosanoids from the 5-LOX and COX-2 cross-over pathway"; 12th International Conference on Bioactive Lipids in Cancer, Inflammation, and Related Diseases, Seattle, WA, September 18-21, 2011.

26. "Convergence of the 5-lipoxygenase and COX-2 pathways"; International workshop "Neuromarks 2012", organized by the Progetto "Lombardia Eccelente"/Cluster di Eccellenza, University of Pavia, Italy, May 21, 2012. (*Invited by Giuseppe Zanoni, PhD*)

27. "Mechanistic basis of the polypharmacology of curcumin"; Seminar at the Department of Medicinal Chemistry and Pharmacognosy, University of Illinois Chicago, October 26, 2012. (*Invited by Judy Bolton, PhD*)

28. "Mechanistic basis of the polypharmacology of curcumin"; Seminar at the Linus Pauling Institute, Oregon State University, Corvallis, OR, February 14, 2013. (*Invited by Balz Frei, PhD*)

29. "Biochemical pharmacology of curcumin"; 52nd Annual Meeting of the Phytochemical Society of North America, Oregon State University, Corvallis, OR, August 3-7, 2013. (*Invited by Fred Stevens, PhD*)

30. "Monomeric and dimeric routes to formation of 4-hydroxynonenal during lipid per-oxidation"; 246th ACS National Meeting, Indianapolis, IN, September 8-12, 2013. (*Invited by Karen Schaich, DSc*)

31. "Recent advances into the 5-LOX/COX-2 cross-over pathway"; 13th International Conference on Bioactive Lipids in Cancer, Inflammation, and Related Diseases, San Juan, Puerto Rico, November 3-6, 2013.

32. "5-Lipoxygenase/COX-2 Interactions"; The 15th International Winter Eicosanoid Conference, Baltimore, MD, March 9-12, 2014.

33. "Chemical biology of curucmin"; Group on Quality, Safety and Bioactivity of Plant Foods, CEBAS-CSIC, Murcia, Spain, May 30, 2014. (*Invited by Francisco Tomas-Barberan, PhD*)

34. "Chemical biology of curucmin"; Institut des Biomolecules Max Mousseron (IBMM), UMR 5247 - CNRS - UM I - UM II, Faculté de Pharmacie, Universite Montepellier 1, Mont-pellier, France, June 2, 2014. *(Invited by Thierry Durand, PhD)*

35. "Biochemical pharmacology of curcumin"; 8th International Conference on Polyphenols Applications – ISANH Polyphenols 2014, Lisbon, Portugal, June 4-6, 2014.

36. "Chemical biology of curcumin"; Graduate School of Bioagricultural Sciences, Nagoya University, Nagoya, Japan, September 3, 2014. *(Invited by Koji Uchida, PhD)*

37. "Biochemical pharmacology of curcumin"; 27th International Conference on Polyphenols and 8th Tannin Conference (ICP2014), Nagoya, Japan, September 2-6, 2014.

38. "A novel pathway of eicosanoid metabolism?"; 14th International Conference on Bioactive Lipids in Cancer, Inflammation, and Related Diseases, Budapest, Hungary, July 12-15, 2015.

39. "Linking metabolism and bioactivity of curcumin"; 7th International Conference on Polyphenols and Health (ICPH2015), Tours, France, October 27-30, 2015.

40. "Unexpected electrophiles in the bioactivity of curcumin"; Pacifichem 2015, Honolulu, Hawaii, December 15-20, 2015. *(Invited by Markus Herderich, PhD)*

41. "A biosynthetic cross-over of the 5-LOX and COX-2 pathways"; The 16th International Winter Eicosanoid Conference, Baltimore, MD, March 13-16, 2016. *(Invited by Richard Phipps, PhD)*

42. "A molecular paradigm for the biological activity of curcumin"; 28th International Conference on Polyphenols (ICP2016), Wien, Austria, July 11-15, 2016.

43. "Metabolic activation and the biological effects of curcumin"; Cancer Biology Seminar Series, University of Arizona, Tucson, AZ, February 6, 2017. *(Invited by Janet Funk, MD)*

44. "Novel substrates and products in cyclooxygenase catalysis"; RIKEN Center for Integrative Medical Sciences, Yokohama, Japan, March 14, 2017. *(Invited by Makoto Arita, PhD)*

45. "Redox biochemistry of curcumin" 13th Redox Life Innovation Symposium, Nara, Japan, March 16-17, 2017; keynote speaker. (*Invited by Koji Uchida, PhD*)

46. "Protein binding by curcumin"; 8th International Conference on Polyphenols and Health (ICPH2017), Quebec, Canada, October 3-6, 2017.

47. "Oxidative activation of curcumin: A key to understanding its biological effects"; Department of Chemistry, University of Ottawa, Canada, November 7, 2019. (*Invited by Derek Pratt, PhD*)

48. "Mechanistic basis of protein binding by curcumin and other polyphenols", 4th International Conference on Food Factors (ICoFF2019), Kobe, Japan, December 1-5, 2019. (*Invited by Mitsugo Akagawa, PhD*).

49. "Biosynthetic cross-over of the 5-lipoxygenase and cyclooxygenase-2 pathways"; Dept. of Molecular and Cellular Biochemistry, Juntendo University, Tokyo, Japan, December 5, 2019. (*Invited by Takehiko Yokomizo, MD, PhD*).

50. "Biosynthetic cross-over of the 5-lipoxygenase and cyclooxygenase-2 pathways"; Graduate School of Agricultural and Life Sciences, University of Tokyo, Tokyo, Japan, December 6, 2019. (*Invited by Koji Uchida, PhD*).

51. "Epoxide formation during lipid peroxidation", 2021 AOCS Annual Meeting and Expo, May 5, 2021, virtual conference. (*Invited by Karen Schaich, PhD*). https://doi.org/10.21748/am21.346

52. "How the fatty acyl peroxyl radical determines the outcome of lipid peroxidation", 2021 AOCS Annual Meeting and Expo, May 6, 2021, virtual conference. (*Invited by Karen Schaich, PhD*). https://doi.org/10.21748/am21.03

53. "Curcumin as a pro-drug: Linking metabolism and biological activity", Office of Dietary Supplements (ODS) 25th Anniversary Symposium, October 25 and 26, 2021. *(Invited by Joseph Betz, PhD*). (https://videocast.nih.gov/watch=42508)

54. "Drugs from food: The curious case of curcumin", 10th International Drug Chemistry Congress, Antalya, Turkey, March 10-13, 2022 (*Invited by Oztekin Algul, PhD*).

5. Seminar Presentations at Vanderbilt

1. "Analysis of mechanisms of lipid aldehyde formation"; Research at the Chemistry/Biology Interface Seminar Series, Vanderbilt University School of Medicine, October 26, 2000.

2. "Cyclooxygenases and the control of product stereochemistry"; Department of Pharmacology Seminar Series, Vanderbilt University School of Medicine, May 25, 2001

3. "A food chemist's view on food"; Grand Rounds in Clinical Pharmacology, Vanderbilt University School of Medicine l, December 11, 2001.

4. "Control of prostaglandin synthesis by COX-1 and COX-2"; Experimental Therapeutics Seminar Series, Vanderbilt University School of Medicine, April 23, 2002.

5. "Cyclooxygenase isoforms and their splice variants"; Grand Rounds in Clinical Pharmacology, Vanderbilt University Medical Center, April 22, 2003.

6. "A novel lipoxygenase in skin differentiation"; Skin Diseases Research Center Seminar Series, Vanderbilt University School of Medicine, Nashville, TN, October 10, 2003.

7. "Convergence of the 5-lipoxygenase and COX-2 pathways"; Grand Rounds in Clinical Pharmacology, Vanderbilt University Medical Center, March 28, 2006.

8. "Convergence of the 5-lipoxygenase and COX-2 pathways"; Department of Pharmacology Seminar Series, Vanderbilt University School of Medicine, August 29, 2006.

9. "Five a day and a glass at night: chemopreventive agents in the diet"; Grand Rounds in Clinical Pharmacology, Vanderbilt University Medical Center, October 23, 2007.

10. "How I explored and exploited the COX-2 active site"; Clinical Pharmacology Fellows' Conference Series, Vanderbilt University Medical Center, November 1, 2007.

11. “Old and not so old substrates for probing the mechanism of cyclooxygenases”; Molecular Biophysics Training Program Seminar Series/Center for Structural Biology, Vanderbilt University School of Medicine, March 3, 2008.
12. “Novel eicosanoids derived from convergence of the 5-LOX and COX-2 pathways”; Grand Rounds in Clinical Pharmacology, Vanderbilt University Medical School, January 20, 2009.
13. “Five a day and a glass at night: chemopreventive agents in the diet”; Vision Training Seminar, Vanderbilt University School of Medicine, February 13, 2009.
14. “Oxidative transformation of the chemopreventive agent curcumin”; Oxidative Injury Research Group Meeting, Vanderbilt University School of Medicine, March 19, 2009.
15. “Oxidative transformation of the chemopreventive agent curcumin”; Clinical Pharmacology Fellows’ Conference, Vanderbilt University Medical Center, June 10, 2009.
16. “Identification of 5-LOX/COX-2 derived hemiketal eicosanoids in human blood”; Grand Rounds in Clinical Pharmacology, Vanderbilt University Medical School, April 27, 2010.
17. “Not just leukotrienes: Novel products and biological actions of the 5-lipoxygenase pathway”; Grand Rounds in Clinical Pharmacology, Vanderbilt University Medical Center, February 8, 2011.
18. “Biochemical pharmacology of curcumin”; Grand Rounds in Clinical Pharmacology, Vanderbilt University Medical School, May 14, 2013.
19. “TBD”, NSF-REU summer program, Vanderbilt University School of Medicine, June 21, 2013.
20. “Chemical biology of curcumin”; Vanderbilt DDRC retreat, April 14, 2014.
21. “My favorite molecules”; Vanderbilt Summer Science Academy, June 25, 2014.
22. “My favorite molecules”; Clinical Pharmacology Fellows’ Conference, Vanderbilt University School of Medicine, February 16, 2016.
23. “Bioanalytical approaches to interrogate the 5-LOX/COX-2 biosynthetic cross-over”; Center for Mucosal Inflammation and Cancer, Vanderbilt University Medical Center, April 25, 2017.
24. “The many truths about curcumin”; Grand Rounds in Clinical Pharmacology, Vanderbilt University School of Medicine, October 17, 2017.
25. “Soluble epoxide hydrolase as a novel target in inflammatory bowel disease”; Center for Mucosal Inflammation and Cancer, Vanderbilt University Medical Center, January 21, 2020.
26. “The autoxidation chemistry of curcumin”; CBAS seminar series, Vanderbilt University School of Medicine, October 19, 2020.
27. “A farewell to an old friend”; Grand Rounds in Clinical Pharmacology, Vanderbilt University Medical Center, March 1, 2022.