## STEVEN WORTH BALDWIN

## Curriculum Vitae

## **Personal:**

Place of Birth: Idaho Falls, Idaho

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## **Academic History:**

1960 - 1964 Dartmouth College, AB, Chemistry

1964 – 1965 University of Michigan

1965 - 1969 California Institute of Technology, PhD; (Professor R. E. Ireland, advisor);

Dissertation: "Studies Directed toward the Total Synthesis of Germanicol"

1969 - 1970 Columbia University, National Institutes of Health Postdoctoral Fellow

Assistant Professor of Chemistry, Duke University

(Professor R. Breslow, advisor)

## <u>Professional Experience</u>: 1970 - 1976

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1976 - 1986	Associate Professor of Chemistry, Duke University
1978 - (Fall)	Visiting Associate Professor of Chemistry, Tulane University
1985 - 1990	Director of Graduate Studies in Chemistry, Duke University
1986 - Present	Professor of Chemistry, Duke University
1988 - 1992	Director, Master of Arts in Teaching Program, Duke University
1992 - (Spring)	Visiting Professor of Chemistry, University of North Carolina
1994 -1995	Director of Graduate Studies in Chemistry, Duke University
1995 - 1999	Chairman, Department of Chemistry, Duke University
1999 -2001	Chairman, Arts & Sciences Council, Duke University
2008 - 2014 Dire	ctor of Graduate Studies in Chemistry, Duke University



### **Professional Affiliations:**

American Chemical Society

American Association for the Advancement of Science

American Association of University Professors

Sigma Xi

## **Significant Recent Professional Activities:**

Member, Editorial Advisory Board,

Chemical & Engineering News (1996-1998)

Member, National Research Council Committee on Laboratory Design,

Construction, and Renovation (1997-1999)

Program Review Site Visitor, Committee on Professional Training

(American Chemical Society; 1998-present)

Member, Biomedical Sciences Study Section (BI-4),

National Institutes of Health

Member, Ad Hoc Review Study Section (AIDS),

National Cancer Institute

Member, Ad Hoc Review Study Section (Bio-organic Chemistry),

National Institutes of Health

Consultant, Burroughs-Wellcome Company

Chemical Development Laboratories

Member, SBIR Review Group

**National Science Foundation** 

Member, Scientific Advisory Board and Project Consultant

Enzyme Technology Research Group, Inc.

Scientific Consultant/Expert Witness

ca., 15 pharmaceutical litigations; (1995-present; 2 ongoing)

Member, SBIR Review Group, Phase II Proposals

National Science Foundation (10/98)

Member, NSF REU Review Panel

National Science Foundation (11/00)

Member, Scientific Advisory Board

Synthematix (2000-2006)

Legal Consultant, Pharmaceutical Patent Litigation

(1995 – present)

Founding Partner, PET Diagnostics, Inc. (PDI)

(2002)

Consultant, MedTox Diagnostics, Inc.

(2003 - 2007)

### **Reviewer for:**

Journal of the American Chemical Society

The Journal of Organic Chemistry

Tetrahedron Letters



Tetrahedron

The National Science Foundation

Petroleum Research Fund

Research Corporation

North Carolina Biotechnology Center

National Institutes of Health

Royal Chemical Society

## Pertinent University Activities/Awards (last twenty years, selected):

Best Professor/Duke University (2018)

Excellence in Advising Award (August, 2014)

Faculty Representative, Student Affairs Committee, Duke University Board of Trustees

Director, Master of Arts in Teaching Program

Academic Affairs Committee of Arts and Sciences Council

Director of Graduate Studies in Chemistry

**Executive Committee of the Graduate Faculty** 

Programs and Fellowships Subcommittees of the Executive Committee of the Graduate Faculty

Greek Life Task Force (Co-Chair)

Science Education Advisory Committee

**Duke University Committee on Teacher Preparation** 

Graduate School Recruiter Search Committee

COSEN (Carolinas-Ohio-Science-Education-Network) Lecturer and Research Mentor

University Research Council

Duke-Durham High School Committee

TIP Executive Director Search Committee

Program II Undergraduate Curriculum Committee, Chairman

Provost's Committee on Admissions and Financial Aid

Executive Advisory Committee, Duke University Training Program in Pharmacology

Provost's Summer Priorities Committee

Director, NSF Research Experiences for Undergraduates Program (1994 - 1999)

Chairman, Arts & Sciences Council

Arts and Sciences Curriculum Committee

Alcohol Policy Task Force

University Library Council

University Commencement Speaker Committee (Chair)

Honorary Degree Committee

Provost's Academic Schedule Task Force



Arts & Sciences Research Council

Committee on Facilities and Environment

Academic Council

Pre-major Adviser (current)

Undergraduate Conduct Board

University Schedule Committee (current)

Executive Committee of the Graduate Faculty (Chair)

**Duke University Athletic Council** 

### **Publications:**

- T. A. Spencer, M. D. Newton, and S. W. Baldwin, "Condensation of Diethyl Malonate with Methyl Vinyl Ketone," *J. Org. Chem.*, **29**, 787 (1964).
- T. A. Spencer, S. W. Baldwin, and K. K. Schmiegel, "Pyrolysis of 2-Acetoxy-2-(3-oxobutyl)-cyclohexane-1,3-dione," *J. Org. Chem.* **30**, 1294 (1965).
- R. Breslow and S. W. Baldwin, "Conversion of Cholestanol to 12-Ketocholestanol and to  $\Delta^{14}$  and  $\Delta^{8,14}$  Cholestanol by Remote Oxidation," *J. Am. Chem. Soc.*, **92**, 732 (1970).
- R. E. Ireland, S. W. Baldwin, D. J. Dawson, M. I. Dawson, J. E. Dolfini, and J. Newbould; W. S. Johnson, M. Brown, R. J. Crawford, P. F. Hudrlik, G. H. Rasmussen, and K. K. Schmiegel, "The Total Synthesis of an Unsymmetrical Pentacyclic Triterpene. *d*,*l*-Germanicol," *J. Am. Chem. Soc.*, **92**, 5743 (1970).
- R. E. Ireland, S. W. Baldwin, and S. C. Welch, "Experiments Directed toward the Total Synthesis of Terpenes, XVII. Development of Methods for the Synthesis of Pentacyclic Triterpenes Based on a Mechanistic Interpretation of the Stereochemical Outcome of the Friedel-Crafts Cyclialkylation Reaction," *J. Am. Chem. Soc.*, **94**, 2056 (1972).
- S. W. Baldwin and E. H. Page, Jr., "Intramolecular Ketene Cycloadditions in Unconstrained Systems," *J. Chem, Soc., Chem. Commun.*, 1337 (1972).
- R. Breslow, S.W. Baldwin, T. Flechtner, P. Kalicky, S. Liu, and W. Washburn, "Remote oxidation of Steroids by Photolysis of Attached Benzophenone Groups," *J. Am. Chem. Soc.*, **95**, 3251 (1973).
- S. W. Baldwin and J. C. Tomesch, "Stereoselective Synthesis of 3-exo-Substituted 2-endo-Acyl-5-Norbornene Derivatives," *J. Org. Chem.*, **39**, 2382 (1974).
- S. W. Baldwin, R. J. Doll, and S. A. Haut, "Selectivity in the Free Radical Reduction of Lactones with Trichlorosilane," *J. Org. Chem.*, **39**, 2470 (1974).
- S. W. Baldwin and J. C. Tomesch, "Stereospecific Synthesis of *d*,*l*-Cyclosativene. Alkyne Capture of an Homoallylic Carbonium Ion." *Tetrahedron Lett.*, 1055 (1975).



- R. Breslow, Steven Baldwin, and Mitchell Winnik, "Remote Oxidation of Unactivated Steroid Methylene Groups," Japan Patent #802,588: (June 8, 1975).
- S. W. Baldwin and R. E. Gawley, "Photoannelations with  $\alpha$ -Formyl Ketones. Enol Specificity in the Reaction of Acyclic  $\alpha$ -Formyl Ketones with Alkenes," *J. Org. Chem.* **40**, 1865 (1975).
- S. W. Baldwin and J. C. Tomesch, "Model Studies for the Synthesis of Tetracyclic Sesquiterpenes," *Synthetic Commun.*, **5** (6), 441 (1975).
- S. W. Baldwin and R. E. Gawley, "Photoannelations with α-Formyl Ketones. A Facile Synthesis of the *cis*-9,10-Dimethyldecalin Ring System of the Valerane Sesquiterpenes," *Tetrahedron Lett.*, 3969 (1975).
- S. W. Baldwin and S. A. Haut, "Reductive Deoxygenation of Esters with Trichlorosilane," *J. Org. Chem.*, **40**, 3885 (1975).
- S. W. Baldwin and T. H. O'Neil, "Benzylic Bromination with Bromotrichloromethane," *Synthetic Commun.*, **6** (2), 109 (1976).
- S. W. Baldwin, P. W. Jeffs, and S. Natarajan, "Preparation of Norcocaine," *Synthetic Commun.*, **7** (1), 79 (1977).
- S. W. Baldwin, M. T. Crimmins, and V. I. Cheek, "A Convenient Preparation of  $\alpha$ -Methylene- $\delta$ -Valerolactones," *Synthesis*, 210 (1978).
- S. W. Baldwin and N. G. Landmesser, "Benzyl and Allyl Diazoacetate in One Carbon Rings Expansions of Ketones," *Synthetic Commun.*, **8** (6), 413 (1978).
- S. W. Baldwin and M. T. Crimmins, "A Facile Synthesis of  $\delta$ -Valerolactones by Photoannelation," *Tetrahedron Lett.*, 4197 (1978).
- S. W. Baldwin and J. M. Wilkinson, III, "Cyclohexenones by the Photoannelation of Alkenes with 2,2-Dimethyl-3(2H)-Furanone," *Tetrahedron Lett.*, 2657 (1979).
- S. W. Baldwin and R. J. Doll, "Synthesis of the 2-Aza-7-oxatricyclo-[4.3.2.0<sup>4</sup>,8]-undecane Nucleus of Some Gelsemium Alkaloids," *Tetrahedron Lett.*, 3275 (1979).
- S. W. Baldwin and M. T. Crimmins, "Synthesis of the Alleged Genipic Acid by Photoannelation," *J. Am. Chem. Soc.*, **102**, 1198 (1980).
- S. W. Baldwin and J. C. Tomesch, "Total Synthesis of *d*,*l*-Cyclosativene by Cationic Olefinic and Acetylenic Cyclizations," *J. Org. Chem.*, **45**, 1455 (1980).
- S. W. Baldwin and J. M. Wilkinson, "Four Carbon Photochemical Annelation of Alkenes with 2,2,6-Trimethyl-1,3-Dioxolenone," *J. Am. Chem. Soc.*, **102**, 3634 (1980).



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