# Peter S. Cogan Ph. D.

Assistant Professor of Pharmaceutical Sciences School of Pharmacy Regis University 3333 Regis Blvd. Denver, CO 80221

**Contact Information** 

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# **Education**

# **Postdoctoral Fellowship**

University of Colorado Boulder, CO Department of Chemistry & Biochemistry 01/03 - 09/05Research directed by Prof. Marvin Caruthers, Ph.D.

#### Graduate

University of Colorado Health Sciences Center Denver, CO Department of Pharmaceutical Sciences 9/98 - 12/02Research directed by Prof. Tad H. Koch, Ph.D. Ph.D Pharmaceutical Sciences, concentration in Medicinal Chemistry

# Undergraduate

University of Dayton, Department of Chemistry Dayton, OH B.S. Biochemistry 9/90 - 4/94

# **Professional Laboratory Experience**

#### Postdoctoral Fellow Boulder, CO University of Colorado 01/03 - 09/05

Research directed towards the development of new methods of DNA synthesis. In particular, a "green" approach to solid phase nucleic acid synthesis, including the introduction of environmentally benign reagents, reduction of synthetic steps, and improved efficiency of said steps was pursued. Responsibilities included synthesis of phosphoramidite monomers, development of novel protecting groups, and design and synthesis of novel ionic liquid solvent systems which support phosphoramidite coupling.

### Graduate Research Assistant

Boulder, CO University of Colorado 12/99 - 12/02

Research conducted in the design, synthesis, and evaluation of targeted prodrugs of the antineoplastic anthracycline doxorubicin. Involved development of novel synthetic strategies and protocols for the evaluation of rationally designed target molecules. Experience gained in the design of receptor targeted prodrugs, organic synthesis and purification, cell culture, whole cell and cell free biochemical evaluation, design of competitive radioligand binding assays, and drug formulation.

## University of Colorado Health Sciences Center

09/97 - 12/98

Research conducted in molecular biology/pharmacology laboratories. Techniques developed include introduction of point mutations and isolation of the resulting proteins, screening for specific protein-protein interactions of topoisomerase II with random peptide libraries and DNA sequencing of selected clones.

Analytical Chemist
Abbott Laboratories

North Chicago, IL
09/94 – 09/95

Pilot plant lot validation and long term stability testing for aerosol formulations of bioactive peptides. Duties included the determination of aerosol particle size, moisture content as a function of storage conditions, and normalization of dose delivery.

#### Undergraduate Research Assistant

Dayton, OH

University of Dayton

09/92 - 09/93

Research was conducted under the direction of Prof. Kevin Church PhD and was aimed at the development of novel antineoplastic agents. Primary duties were the synthesis, purification, and identification of rationally designed target compounds and intermediates.

# **Professional Teaching Experience**

# Assistant Professor of Pharmaceutical Science

Denver, CO

Regis University School of Pharmacy

06/11 - present

# Assistant Professor of Chemistry

Antigua, WI

American International College of Arts and Sciences Antigua

09/05 - 06/11

Responsibilities include teaching and developing curriculum for the full organic chemistry I and II sequence three times each year, teaching and developing the concomitant laboratory courses, teaching and developing curriculum for an undergraduate biochemistry course, advising student progress, various committee work, curriculum development, and work towards acquisition of accreditation for a new liberal arts college on the island of Antigua, West Indies.

# <u>Instructor of Organic Chemistry</u> Boulder, CO Minority Arts and Science Program, University of Colorado 09/03 – 09/05

# <u>Instructor of Organic Chemistry Laboratories</u> Chicago, IL Department of Chemistry and Biochemistry, Loyola University 05/95 – 09/95

#### **Honors and Awards**

Colorado Doctoral Fellowship 1998

### Regis University URSC grant 2012

"Enzymatic Synthesis of Oligonucleotides via Substrate Assisted Catalysis."

AACP P1 class teacher of the year award 04/21

# **Scholarship**

## **Publications in Refereed Journals**

Refereed Publications as Associate Professor

- 1. **Cogan, Peter S.** "Regarding the Mechanisms of Promiscuous Cannabinoid Pharmacology: An Elephant Has Entered the Room." *Cannabis and Cannabinoid Research*, Online February 11, 2021.
- 2. **Cogan, P. S.** "Reality and Legality: Disentangling What Is Actual from What Is Tolerated in Comparisons of Hemp Extracts with Pure CBD." *Journal of Dietary Supplements* 17, no. 5 (September 2, 2020): 527–42.
- 3. **Cogan, Peter S.** "Practical Considerations of Hypotheses and Evidence in Cannabis Pharmacotherapy: Refining Expectations of Clinical Endocannabinoid Deficiency." *Journal of Dietary Supplements* 17, no. 5 (September 2, 2020): 608–24.
- 4. **Cogan, Peter S.** "The 'Entourage Effect' or 'Hodge-Podge Hashish': The Questionable Rebranding, Marketing, and Expectations of Cannabis Polypharmacy." *Expert Review of Clinical Pharmacology* 13, no. 8 (August 2, 2020): 835–45.
- 5. Cogan, P.S. "On Healthcare by Popular Appeal: critical assessment of benefit and risk in cannabidiol based dietary supplements", *Expert Rev. Clin. Pharmacol.*, **2019**, 12(6) 501-11.
- 6. James, S., Cogan, P., McCollum, M., "Team-Based Learning for Immunology Courses in Allied Health Programs", *Front. Immunol.*, **2019**, 10, Article 2477 (E-pub).
- 7. Ganesh, A.N., Aman, A., Logie, J., Barthel, B.L., Cogan, P., Al-Awar, R., Koch, T.H., Schoichet, B.K., Schoichet, M.S. "Colloidal Drug Aggregate Stability in High Serum Conditions and Pharmacokinetic Consequence.", *ACS Chem. Biol.*, **2019**, 14(4) 751-7.

#### Refereed Publications as Assistant Professor

- 8. **Cogan, P.S.**, Sucher, B.J., "Appropriate use of Pressurized Metered-Dose Inhalers for Asthma.", *U.S. Pharmacist.* **2015**, 7, 1-6.
- 9. Sucher, A.J., Chahine, E.B., Cogan, P., Fete, M., "Ceftolozane/Tazobactam: A New Cephalosporin and β-lactamase Inhibitor Combination.", *Ann. Pharmacother.*, **2015**, 49(9), 1046 1056.

### Refereed Publications Prior to Regis

- 10. Cogan, P.S., Fowler, C.R., Post, G.C., Koch, T.H. "Doxsaliform: A novel N-Mannich base prodrug of a doxorubicin formaldehyde conjugate.", *Lett. Drug Design Devlop.* **2004**, 1(3), 247-255.
- 11. **Cogan, P.S.**, Koch, T.H. "Studies of targeting and intracellular trafficking of an anti-androgen-doxorubicin-formaldehyde conjugate in PC-3 prostate cancer cells bearing androgen receptor-GFP chimera.", *J. Med. Chem* **2004**, 47, 5690-5699.

- 12. **Cogan, P.S.**, Koch, T.H. "Rational design and synthesis of androgen receptor-targeted nonsteroidal anti-androgen ligands for the tumor-specific delivery of a doxorubicin- formaldehyde conjugate.", *J. Med. Chem.* **2003**, 46, 5258-5270.
- 13. Dernell, W.S., Powers, B.E., Taatjes, D.J., Cogan, P., Gaudiano, G., Koch, T.H. "Evaluation of the epidoxorubicin-formaldehyde conjugate, epidoxoform, in a mouse mammary carcinoma model.", *Cancer Invest.* **2002**, 20, 712-723.

#### **Publications in Non-Refereed Journals**

- 1. Sucher A, Cogan P. Immunizations in the elderly. Module component (1 continuing education credit hour) of a 12-hour consultant pharmacist recertification course titled "Optimizing Geriatric Care: A Guide to Therapeutic Considerations for the Senior Care Patient" provided by the University of Florida College of Pharmacy. Available December 2015 to December 2018 at: http://cpe.pharmacy.ufl.edu/courses/consultant/optimizing-geriatric-care-a-guide-to-therapeutic-considerations-for-the-senior-care-patient/
- 2. Sucher A, Cogan P. Respiratory infections in geriatric patients. Module component (1.5 continuing education credit hours) of a 12-hour consultant pharmacist recertification course titled "Optimizing Geriatric Care: A Guide to Therapeutic Considerations for the Senior Care Patient" provided by the University of Florida College of Pharmacy. Available December 2015 to December 2018 at: http://cpe.pharmacy.ufl.edu/courses/consultant/optimizing-geriatric-care-a-guide-to-therapeutic-considerations-for-the-senior-care-patient/
- 3. Sucher B, Cogan P. Optimizing Care for Patients with Chronic Obstructive Pulmonary Disease through Appropriate Use of Inhalers. Module component (1.5 continuing education credit hours) of a 12-hour consultant pharmacist recertification course titled "Optimizing Geriatric Care: A Guide to Therapeutic Considerations for the Senior Care Patient" provided by the University of Florida College of Pharmacy. Available December 2015 to December 2018 at: http://cpe.pharmacy.ufl.edu/courses/consultant/optimizing-geriatric-care-a-guide-to-therapeutic-considerations-for-the-senior-care-patient/

#### **Patents**

- 1. Koch, Tad H.; Coleman, Michael P.; **Cogan, Peter S**.; Burke, Patrick J.; Post, Glen C.; Burkhart, David J.; McKenzie, Andrew R.; Jackson, Katrina L.; Kalet, Brian T. Targeted drug-formaldehyde conjugates and methods of making and using the same. PCT Int. Appl. (2005), 180 pp. CODEN: PIXXD2 WO 2005034856 A2 20050421 CAN 142:411587 AN 2005:346801.
- 2. Dellinger, Douglas J.; Leproust, Eric; Peck, Bill; Caruthers, Marvin H.; **Cogan, Peter**. Uses of cationic salts for polynucleotide synthesis. U.S. Pat. Appl. Publ. (2005), 20 pp., Cont.-in-part of U.S. Ser. No. 1,044. CODEN: USXXCO US 2005287555 A1 20051229 CAN 144:88516 AN 2005:1350702.