BIOGRAPHICAL SKETCH

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NAME	POSITION TITLE
James T. Dalton, Ph.D.	Professor
eRA COMMONS USER NAME dalton01	

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	YEAR(s)	FIELD OF STUDY
University of Cincinnati, Cincinnati, OH	B.S.	1986	Pharmacy
The Ohio State University, Columbus, OH	Ph.D.	1990	Pharmaceutical chemistry
The Ohio State University, Columbus, OH	Postdoc	1992	Cancer pharmacology

A. Positions and Honors

Positions and Employment

1986 - 1990 Graduate Teaching and Research Associate, The Ohio State University, Division of Pharmaceutics and Pharmaceutical Chemistry, Columbus, OH.

1991 - 1992 Senior Research Associate and Lecturer, The Ohio State University, Division of Pharmaceutics and Pharmaceutical Chemistry, Columbus, OH.

1992 - 1997 Assistant Professor, University of Tennessee, Dept of Pharmaceutical Sciences, Memphis, TN.

1997 - 2000 Associate Professor, University of Tennessee, Dept of Pharmaceutical Sciences, Memphis, TN.

2000 - 2004 Associate Professor, The Ohio State University, Division of Pharmaceutics, Columbus, OH.

2002 – 2004 Interim Chair, The Ohio State University, Division of Pharmaceutics, Columbus, Ohio.

2004 - Professor, The Ohio State University, Division of Pharmaceutics, Columbus, Ohio.

Professional Service

2000, 2002 Special Emphasis Panel, ZRG1, SSS-1, SBIR/STTR Grants Program, Center for Scientific Review, National Institutes of Health.

2003 Special Emphasis Panel, ZDK1 GRB-6 for RFA entitled "Androgen Receptor in Prostate Growth and Cancer", Center for Scientific Review, National Institutes of Health

2004 Ad hoc reviewer, Xenobiotic and Nutrient Disposition and Absorption (XNDA) study section, Center for Scientific Review, National Institutes of Health.

2004 Member, ZRG1 DIG-F (02), Pharmacogenomics ad hoc study section, Center for Scientific Review, National Institutes of Health.

Selected Patents, Provisional Patents, and Invention Disclosures (of 7 approved and 73 patents pending)

1. "Nonsteroidal Agonist Compounds and their Use in Male Hormone Therapy", Inventors: James T. Dalton, Leonid Kirkovsky, Duane D. Miller, and Arnab Mukherjee, Department of Pharmaceutical Sciences, College of Pharmacy, University of Tennessee. United States Patent #6,160,011, issued December 12, 2000.
2. "Selective Androgen Receptor Modulators and Methods of Use Thereof", Inventors: James T. Dalton, Yali He, Duane D. Miller, and Donghua Yin, Department of Pharmaceutical Sciences, College of Pharmacy, University of Tennessee. United States Patent #6,492,554, issued December 10, 2002.

3. "Selective Androgen Receptor Modulators and Methods of Use Thereof", Inventors: James T. Dalton, Yali He, Duane D. Miller, and Donghua Yin, Department of Pharmaceutical Sciences, College of Pharmacy, University of Tennessee. United States Patent #6,569,896, issued May 27, 2003.

B. Selected Publications (selected from 46 peer-reviewed publications)

1. **Dalton JT**, Mukherjee A, Zhu Z, Kirkovsky L, and Miller DD. Discovery of Nonsteroidal Androgens. *Biochemical and Biophysical Research Communications*, 244(1):1-4, 1998.
3. Mukherjee A, Kirkovsky LI, Kimura Y, Marvel MM, Miller DD, and **Dalton JT**. Affinity Labeling of the Androgen Receptor with Nonsteroidal Chemoaffinity Ligands. *Biochemical Pharmacology*, 58: 1259-1267, 1999.
5. Kirkovsky L, Mukherjee A, Yin D, **Dalton JT**, and Miller DD. Chiral Nonsteroidal Affinity Ligands for the Androgen Receptor. 1. Bicalutamide Analogs bearing Electrophilic Groups at the Aromatic Ring B. *Journal of Medicinal Chemistry*, 43: 581-590, 2000.
6. Marhefka C, Moore II B, **Dalton JT**, and Miller DD. Homology Modeling Using Multiple Molecular Dynamics Simulations and Docking Studies of the Human Androgen Receptor Ligand Binding Domain Bound to Testosterone and Nonsteroidal Ligands. *J of Medicinal Chemistry*, 44: 1729-1740, 2001.
7. Zhu Z, Bulgakov O, Scott SS, and **Dalton JT**. Recombinant Expression And Purification Of Human Androgen Receptor In A Baculovirus System. *Biochem Biophysical Res Comm*, 284: 828-835, 2001.
8. Zhu Z, Becklin RR, Desiderio DM, and **Dalton JT**. Tryptic Peptide Mapping, Partial Amino Acid Sequencing, and Identification of a Phosphorylation Site of the Human Androgen Receptor by Mass Spectrometry. *Biochemical and Biophysical Research Communications*, 284: 836-844, 2001.
9. Zhu Z, Becklin RR, Desiderio DM, and **Dalton JT**. Mass Spectrometric Characterization of the Human Androgen Receptor Ligand-Binding Domain Expressed in E. Coli. Biochemistry, 40:10756-10763, 2001.
10. He Y, Yin D, Perera MA, Kirkovsky L, Stourman N, **Dalton JT**, and Miller DD. Nonsteroidal Ligands with High Affinity & Potent Functional Activity for the Human Androgen Receptor. *European Journal of Medicinal Chemistry*, 37: 619-634, 2002.
11. Yin D, He Y, Hong SS, Marhefka CA, Stourman N, Kirkovsky L, Miller DD, and **Dalton JT**. Key Structural Features of Nonsteroidal Ligands for Binding and Activation of the Androgen Receptor. *Molecular Pharmacology*, 63:211-223, 2003.
12. Yin D, Xu H, He Y, Kirkovsky L, Miller DD, and **Dalton JT**. Pharmacology, Pharmacokinetics and Metabolism of Acetothiolutamide, A Novel Nonsteroidal Agonist for the Androgen Receptor. *Journal of Pharmacology and Experimental Therapeutics* 304:1323-1333, 2003.
13. Yin D, Gao W, Kearbey JD, Xu H, Chung K, Miller DD, and **Dalton JT**. Pharmacodynamics of Selective Androgen Receptor Modulators. *Journal of Pharmacology and Experimental Therapeutics* 304: 1334-1340, 2003.
14. Marhefka CA, Gao W, Chung K, Kim J, He Y, Yin D, Bohl C, **Dalton JT**, and Miller DD. Design, Synthesis, and Biological Characterization of Metabolically Stable Selective Androgen Receptor Modulators. *Journal of Medicinal Chemistry*, 47: 993-998, 2004.
15. Wu Z, Gao W, Phelps MA, Wu D, Miller DD, **Dalton JT**. Favorable effects of weak acids on negative-ion electrospray ionization mass spectrometry. *Analytical Chem*. 2004 Feb 1;76(3):839-47.
18. Bohl CE, Chang C, Mohler ML, Chen J, Miller DD, Swaan PW, **Dalton JT**. A ligand-based approach to identify quantitative structure-activity relationships for the androgen receptor. *J Med Chem.* 2004 Jul 15;47(15):3765-76.
19. Gao W, Kearbey JD, Nair VA, Chung K, Parlow AF, Miller DD, **Dalton JT**. Comparison of the pharmacological effects of a novel selective androgen receptor modulator, the 5alpha-reductase

inhibitor finasteride, and the antiandrogen hydroxyflutamide in intact rats: new approach for benign prostate hyperplasia. *Endocrinology*. 2004 Dec;145(12):5420-8.

20. Chen J, Hwang DJ, Bohl CE, Miller DD, **Dalton JT**. A selective androgen receptor modulator for hormonal male contraception. *J Pharmacol Exp Ther*. 2005 Feb;312(2):546-53.

C. Research Support

Ongoing Research Support

R01 DK59800-06 Dalton (PI) 10/1/00 to 9/30/09
NIDDK
Pharmacology of Nonsteroidal Androgen Receptor Ligands
The goals of this research are to design, synthesize, and examine the in vivo pharmacologic activity of nonsteroidal androgen receptor ligands in castrated male rats. No crystallography, mass spectrometry, or studies of molecular mechanism are included. The grant is entirely focused on preclinical pharmacology.
Role: PI

R01 DK065227-02 Miller (PI) 07/01/03 to 06/30/07
NIDDK
Novel Irreversible SARMs for Prostate Cancer
The major goal of this research is to identify new drugs that irreversibly inhibit androgen receptor action and are effective in the treatment of prostate cancer. Molecular design, organic, synthesis, in vitro chemosensitivity, and in vivo xenograft studies of these agents will be performed. There is no scientific or budgetary overlap with the current proposal.
Role: Co-Investigator

PC 001480 Dalton (PI) 08/20/2001 to 2/19/05
U.S. Army (Department of Defense)
Novel Strategy for Prostate Cancer Imaging: Synthesis and Pharmacology of Novel Nonsteroidal Ligands.
The major goal of this research is to identify radiolabeled nonsteroidal ligands for imaging of prostate cancer.
Role: PI

PC010431 Miller (PI) 10/1/2001 to 9/30/05
U.S. Army (Department of Defense)
Selective Cytotoxic Phospholipids for Prostate Cancer.
The major goal of this research is to identify phospholipid growth factor antagonists for treatment of prostate cancer.
Role: Co-Investigator

R21 CA104982-01 Donkor (PI) 01/01/04 to 12/31/05
NCI
Targeting Calpain for Novel Anticancer Agents
The goal of this research is examine the molecular and preclinical pharmacology of novel calpain inhibitors.
Role: Co-Investigator

U01 CA076576-06 Grever (PI) 04/15/98 to 01/31/08
Phase I Trials of Anticancer Agents
The goals of this research is to examine the safety and pharmacokinetics of investigational anticancer agents

in cancer patients.
Role: Co-Investigator

R01 CA102504-01 Byrd (PI) 09/01/03 to 08/31/07
NCI
Hu1D10 in CLL: Clinical and Laboratory Studies
The goals of this research are to examine the clinical activity, toxicity, and pharmacology of this targeted therapy in genetically characterized CLL patients.
Role: Co-Investigator

Completed Research Support
R29 CA68096-06 Dalton (PI) 9/1/97 to 8/31/03
NCI
Nonsteroidal Affinity Ligands for the Androgen Receptor.
The major goal of this research was to examine the structure of the human androgen receptor using chemoaffinity ligands.
Role: PI