

Pharmaceutical Sciences

Department Information

- **Department Chair:**
Jagdish Singh, Ph.D.
- **Department Location:**
136 Sudro Hall
- **Department Phone:**
(701) 231-7661
- **Department Web Site:**
www.ndsu.edu/pharmacy
- **Application Deadline:**
March 15 for fall semester and October 1 for spring semester, if positions are available.
- **Credential Offered:**
Ph.D.
- **Test Requirement:**
GRE (300 or more)
- **English Proficiency Requirements:**
TOEFL iBT 90; IELTS 6.5

Program Description

The Department of Pharmaceutical Sciences offers graduate study leading to the Master of Science and Doctor of Philosophy degrees. Advanced work may be selected from pharmaceuticals, pharmacokinetics, pharmacology, and medicinal chemistry."

The pharmaceutical sciences curriculum consists of a core of courses involving both basic and pharmaceutical sciences. In addition, students will select courses that will prepare them to be competent scientists in their fields.

Admissions Requirements

The Department of Pharmaceutical Sciences graduate program is open to all qualified graduates of recognized universities and colleges. In addition to the Graduate School requirements, the applicant must have adequate preparation in pharmacy or a biological or physical science related to pharmaceutical sciences.

Students interested in the Master of Science degree should contact the Department of Pharmaceutical Sciences for more information.

Financial Assistance

Graduate assistantships are available. To be considered for an assistantship, the student must have completed a Graduate School application, be accepted by the department, and submit a formal letter to the department chair requesting an assistantship.

Doctor of Philosophy

The Doctor of Philosophy program requires the completion of 30 semester credits of letter-graded course work with a GPA of 3.0 or better. Of the 30 credits, at least 18 credits must be at 700 level. Candidates defend their dissertations. Candidates for the Ph.D. will be required to take an examination directed at determining competency in the pharmaceutical sciences.

The department requires the following core courses:

| Code | Title | Credits |
|----------|---|---------|
| PSCI 611 | Principles of Pharmacokinetics and Pharmacodynamics | 3 |
| PSCI 670 | Pharmacokinetics | 3 |
| PSCI 790 | Graduate Seminar | 1-3 |
| BIOC 701 | Comprehensive Biochemistry I | 4 |
| BIOC 702 | Comprehensive Biochemistry II | 4 |
| STAT 725 | Applied Statistics | 3 |

Master of Science

In consultation with the adviser and student's supervisory committee a Plan of Study would be developed. The Master of Science in Pharmaceutical Sciences program follows Graduate College degree requirements (<https://bulletin.ndsu.edu/graduate/graduate-school-policies/masters-program-policies>).

Ang Guo, Ph.D.

Shanghai Institute for Biological Sciences, Chinese Academy of Sciences, 2010
Postdoctoral: University of Iowa, 2015
Research Assistant Professor, 2019
Research Interests: Cardiovascular Pharmacology and Pathophysiology

Yagna Jarajapu, M.Pharm., Ph.D.

University of Strathclyde, 1998
Glasgow Caledonian University, 2002
Postdoctoral: University of Florida and Wake Forest University 2003-2008
Research Interests: ACE2/Angiotensin-(1-7) and Bone Marrow Progenitor Cells in Diabetes

Buddhadev Layek, Ph.D.

North Dakota State University, 2014
Postdoctoral: University of Minnesota 2017
Researcher 5, University of Minnesota, 2020
Research Interests: Pharmacokinetic, toxicokinetic, and metabolic profiling of small molecule drug candidates and biologics

Estelle Leclerc, Ph.D.

University Paris XI, 1994
Postdoctoral: ETH-Zurich, 1994-1998; The Scripps Research Institute, 1998-2003
Junior Group Leader Children's Hospital Zurich, 2004
Research Assistant Professor Florida Atlantic University, 2005-2009
Research Interests: Biopharmaceutics

Sanku Mallik, Ph.D.

Case Western Reserve University, 1992
Postdoctoral: California Institute of Technology, 1993-95
Research Interests: Synthetic medicinal chemistry

Sijo Mathew, Ph.D.

Central Food Technological Research Institute, Mysore, India , 2006
Postdoctoral: University of Tennessee, 2008 and Vanderbilt University Medical Center, 2012
Research Interests: Kidney disease, pancreatic Cancer, Biopharmaceutics

Stephen T. O'Rourke, Ph.D.

University of Wisconsin, 1985
Postdoctoral: Mayo Clinic and Foundation, 1985-87
Research Interests: Vascular Pharmacology

Jagdish Singh, Ph.D.

Banaras Hindu University, 1982
Postdoctoral: University of Otago, New Zealand, 1985-88; University of California–San Francisco, 1992-94
Research Interests: Novel Dosage and Drug Delivery Systems, Biopharmaceutics

Kristine Steffen, Pharm.D., Ph.D.

North Dakota State University, 2002
North Dakota State University, 2007
Postdoctoral: Neuropsychiatric Research Institute, 2007-2009
Research Interests: Pharmacokinetics, Bariatric Surgery, Eating Disorder and Obesity Pharmacotherapy

Chengwen Sun, M.D., Ph.D.

Norman Bethune University of Medical Sciences, 1988
Norman Bethune University of Medical Sciences, 1996
Postdoctoral: Department of Physiology, Medical College of Wisconsin, 1996-2000
Research Interests: Central Blood Pressure Control and Hypertension Gene Therapy

Sathish Venkatachalem, Ph.D.

University of Madras, 2003

Postdoctoral: University of Western Ontario, 2004-2006

Research Interests: Human Lung Diseases (Asthma, Chronic Obstructive Pulmonary Disease and Pulmonary Hypertension)