HERE IS WHERE GREAT HEALTHCARE LEADERS ARE CREATED

University at Buffalo
School of Pharmacy and Pharmaceutical Sciences
Since 1887, we have been a leader in the education of pharmacy students and pharmaceutical sciences researchers. We continue our progressive journey into the 21st century with innovative research led by outstanding faculty along with the initiation of progressive educational paths, preparing our students to be the clinical and research leaders of the future.

I invite you to read more about our journey and how we are creating solutions to address society’s most pressing health care needs.

Gary M. Pollack, PhD
Dean and Professor
A Legacy of Learning
Beginning in 1886, here is where the foundational principles of pharmacy education began.

1886
First class begins studies

1888
First graduating class: 18 students, including two female students

1933
Four-year Bachelor of Pharmacy degree

1940
PhD in Pharmaceutical Chemistry and Pharmacology degrees

1950
First clinical pharmacokinetics lab in the United States

1972
First UB School of Pharmacy and Pharmaceutical Sciences Dual Degree: BS/MBA

1987
Department of Biopharmaceutics established by Gerhard Levy, father of pharmacodynamics

1992
Smart Pill developed and patented by professor emeritus Jerome Schentag

1995
Clinical Research Program for pharmacy student research leaders

2002
Clinical Research Program for pharmacy student research leaders

2008
Center for Pharmacokinetics and Pharmacodynamics and Center for Protein Therapeutics

2012
Scholars Program for pharmacy student scholarly leaders

2015
Global Health Outreach Program

2018
Systems Pharmacology Initiative

2020
FDA approval of first anti-FcRn agent, a class of autoimmune drugs innovated by the Balthasar Lab

2021
Ranked #1 pharmacy school in New York State and No. 14 in U.S. by U.S. News & World Report

2022
Honors/ Satisfactory/ Unsatisfactory PharmD grading system

Two degrees offered: Master of Pharmacy and Doctor of Pharmacy

Accreditation by the American Council of Pharmaceutical Education

Pharmacotherapy Research Center and Core Analytic Lab created to investigate HIV/ AIDS and other infectious diseases

Ranked #1 pharmacy school in New York State and No. 14 in U.S. by U.S. News & World Report
REIMAGINING
EDUCATION

Our transformational approach to education has allowed us to implement a renewed educational blueprint for student success, guided by recognized leaders in pharmacy education and clinical practice.

A New Path for Academic Success: H/S/U Grading System

We are one of a select group of pharmacy schools to implement a non-letter grade approach to student learning, improving student success and PharmD program quality.

H/S/U: Student Benefits

• Has improved faculty-student communication: concepts – not grades
• Performance evaluations: mastery of concepts – not grades
A New Path for Academic Success: Learning and Engagement Communities

SPPS students live and learn in innovative Learning and Engagement Communities; where students, faculty and staff partner to explore the profession of pharmacy and develop shared connections fostering our students’ professional and personal journeys.

Student Wellness

Our holistic approach to developing student focused programs promotes inclusion, wellness and a stronger sense of community.

- Dedicated reflection room
- Financial literacy workshops
- Midday breaks
- Robust student organization and club network
- Student organizations dedicated to fun extra-curriculars
- Workshops to enhance and build interpersonal and resiliency skills
TRANSFORMATIVE RESEARCH AND SCHOLARSHIP

Our transformative research and scholarship has helped develop the founding principles of drug discovery and paved the way for our recognized leadership in systems pharmacology, translational research and evaluative clinical sciences.

Million Dollar Leaders

Our leadership success is driven by our pre-eminent faculty researchers and their pioneering investigation in drug delivery, drug discovery and drug development.

$1M+ Grants
19 grants by 13 faculty

OVER 50% of tenure track faculty have $1 million+ grants (13 of 24 tenure track faculty)

$5 Million+ Leaders

$18 Million
Gene Morse, PharmD, SUNY Distinguished Professor: Drug Development, ID/HIV

$15.6 Million
Joseph Balthasar, PhD, David and Jane Chu Endowed Chair in Drug Discovery and Development: Antibody drug conjugates

$8 Million
Brian Tsuji, PharmD, Associate Dean, Clinical and Translational Sciences: Antimicrobial resistance
High Impact Funding

High impact funding drives our research core.

**Top Funded Projects**

**$14 Million**
NIADA, Clinical Pharmacology Quality Assurance ID/HIV
Gene Morse, PharmD

**$9.6 Million**
Multiple sponsors, Center for Protein Therapeutics
Joseph Balthasar, PhD

**$4 Million**
NIADA, Aging, Polypharmacy, and Neurotoxicity in Adults Living with HIV
Qing Ma, PharmD, PhD

**$3.9 Million**
NIADA, Novel Strategies for Antibiotic Combinations to Combat Gram-negative Superbugs
Brian Tsuji, PharmD

**$3.8 Million**
NIADA, Novel Combination Therapies to Combat Hypermutable Carbapenem-Resistant P. aeruginosa
Brian Tsuji, PharmD

**$3.5 Million**
NIADA, Age and Race Influences on Immunosuppression After Renal Transplant
Kathleen Tornatore, PharmD

Research on the Rise

Effective research strategies and strategic approach to innovation move us forward.

**AACP 2022 Institutional Research Rankings**
(AACP 2022 Institutional Research Rankings: increases based on 2021-22 research data comparisons)

- **+11%** TOTAL RESEARCH FUNDING
- **+14%** FEDERAL PI FUNDING
- **+17%** NIH PI FUNDING

Tenure Track Faculty **67%** have federal funding
Emerging Science Support: Statewide and Campus Driven

Our research enterprise is supported and valued by state and campus partners.

<table>
<thead>
<tr>
<th>NEW YORK STATE FACULTY INVESTMENT</th>
<th>UB BUILDING INTERDISCIPLINARY EXCELLENCE</th>
<th>UB STRATEGIC INVESTMENT:</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1.4 million faculty hiring</td>
<td>$1.2 million start up support</td>
<td>$865,000 develop postgraduate pipelines</td>
</tr>
</tbody>
</table>

**Trailblazing Scientific Scholarship**

Our faculty lead scientific discovery to improve health and eradicate disease.

- **Defining the Origins of New Autoimmune Treatments: FcRn Inhibitors and Vyvgart:** increase antibody elimination and patent approval of Vyvgart; first FcRn inhibitor approved by the FDA for medical use.
  - Joseph Balthasar, PhD

- **Identification of Key Metabolic Regulators in Cancer Cell Resistance to Gemcitabine:** establishment of rational basis for the design of effective therapeutic approaches to overcome Gem resistance in PDAC patients.
  - Robert Straubinger, PhD and Jun Qu, PhD

- **Kawasaki Disease:** First test in North America to predict IVIG therapeutic resistance.
  - Co-author, Nicholas Fusco, PharmD

**Novel Community and Educational Scholarship**

Our faculty investigate where education and community intersect to improve wellness.

- **Effectiveness of Social Determinants of Health Pharmacy Program Implemented in Community Pharmacies:**
  - Christopher Daly, PharmD

- **Preparing Health Professions Students to Address Medical Misinformation and Vaccine Hesitancy – Through Competency Based Interprofessional Instructional Design Strategies:**
  - Nicholas Fusco, PharmD

- **Opioid Prescriber Training Program:**
  - Edward Bednarczyk, PharmD
UB Top 10: American Journal of Pharmaceutical Education

Recognition by our peers for preeminent scholarly leadership in pharmacy education and student learning.*

SCHOOL

#5

UB Pharmacy and Pharmaceutical Sciences

AUTHOR

#6

William Prescott, PharmD, clinical professor and chair, pharmacy practice

* 2022 AJPE data

ORGANIZING FOR SUCCESS

We have reimagined our organizational structure and operations to enhance our student experience, research productivity and scholarly collaborations.
Transforming Departments into Divisions

Creation of strategic divisions to align strengths and support mission critical objectives.

Department of Pharmacy Practice Divisions

Clinical and Translational Therapeutics
Education and Teaching Innovation
Outcomes and Practice Advancement

Department of Pharmaceutical Sciences Divisions

Drug and Biotherapeutic Discovery
Drug Delivery and Pharmaceutical Bioengineering
Pharmacokinetics/Pharmacodynamics and Systems Pharmacology

The Office of Student Success and Engagement

Innovative new student services office, providing a supportive environment to enrich and empower students, ensure personal growth, professional and career preparation, and academic success.

New personnel and structure to support student success

- Associate Dean for Student Success and Engagement
- Assistant Dean for Student Success and Engagement
- Director of Registrar and Enrollment Services
- Director of Undergraduate Advisement and Recruitment
- Associate Director for Student Success and Engagement
- Student Engagement Coordinator
- Recruitment and Advisement Coordinator
- Student Success Coach
Drug Discovery, Development and Evaluation Research Hub (DDDE)

A new way of approaching transdisciplinary and interdisciplinary research

The new DDDE Research Hub provides cross-campus interdisciplinary leadership and creative approaches to support core innovations in drug discovery and development along with the development of a translational therapeutic core, supporting clinical pharmacology, policy development and evaluative clinical sciences.

<table>
<thead>
<tr>
<th>DDDE Core Areas</th>
<th>DDDE Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug Discovery and Design</td>
<td>• Federal Funding:</td>
</tr>
<tr>
<td></td>
<td>Enhance and expand competitiveness</td>
</tr>
<tr>
<td>Drug Delivery</td>
<td>• Pharma and Biotechnology:</td>
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<tr>
<td></td>
<td>Develop new research and training partnerships</td>
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<tr>
<td>Quantitative Systems Pharmacology</td>
<td>• Interdisciplinary Training Grants:</td>
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<tr>
<td></td>
<td>Create new platforms</td>
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<tr>
<td>Translational Therapeutics</td>
<td>• Doctoral Degrees:</td>
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<td></td>
<td>Increase number granted</td>
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<tr>
<td></td>
<td>• Reputational Advantage:</td>
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<td></td>
<td>Increase awareness of exceptional UB research</td>
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</tbody>
</table>
Preeminent past and present faculty are the reason for our recognized leadership and success. We are proud of their legacy and their impact on the future of the profession.

### Achievement

**Awards and Recognitions**

<table>
<thead>
<tr>
<th><strong>International and National</strong></th>
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<tbody>
<tr>
<td><strong>1</strong> National Academy of Sciences Member</td>
</tr>
<tr>
<td>Gerhard Levy: first PharmD inducted</td>
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<tr>
<td><strong>2</strong> International Pharmaceutical Federation</td>
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<tr>
<td>1 Høst-Madsen Medal</td>
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<tr>
<td>1 Lifetime Achievement Award</td>
</tr>
<tr>
<td><strong>3</strong> International Society of Pharmacometrics</td>
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<tr>
<td>1 Innovation Award</td>
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<tr>
<td>1 Leadership Award</td>
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<tr>
<td>1 Lewis B. Sheiner Lecturer Award</td>
</tr>
<tr>
<td><strong>4</strong> American Society for Clinical Pharmacology and Therapeutics</td>
</tr>
<tr>
<td>1 Malle Jurima-Romet Mid-Career Leadership Award</td>
</tr>
<tr>
<td>1 William B. Abrams Lecture</td>
</tr>
<tr>
<td>2 Oscar B. Hunter Career Awards in Therapeutics</td>
</tr>
</tbody>
</table>
Awards and Recognitions, continued

INTERNATIONAL AND NATIONAL

1 National Science Foundation CAREER Award

1 International Society for the Study of Xenobiotics New Investigator Award

3 American College of Clinical Pharmacy
   1 Therapeutic Frontiers Lecture
   2 Russell R. Miller Awards

3 American Association of Pharmaceutical Scientists
   3 Distinguished Service Awards

9 American Association of Colleges of Pharmacy
   4 New Investigator Awards
   5 Volwiler Research Achievement Awards

1 American Society for Pharmacology and Experimental Therapeutics
   Early Career Award

1 Argentine Society of Genetics Medal of Honor

STATE UNIVERSITY OF NEW YORK (SUNY)

4 SUNY Distinguished Professors

2 SUNY Chancellor’s Awards for Excellence in Teaching

4 SUNY Chancellor’s Awards for Excellence in Scholarship and Creative Activity

6 SUNY Chancellor’s Awards for Excellence in Faculty Service

4 SUNY Chancellor’s Awards for Excellence in Professional Service

UNIVERSITY AT BUFFALO (UB)

4 UB Distinguished Professors

6 UB Teaching Innovation Awards

6 UB Exceptional Scholar Awards for Young Investigators

7 UB Exceptional Scholar Awards for Sustained Achievement
## Distinctiveness

### Fellows

<table>
<thead>
<tr>
<th>#</th>
<th>Organization</th>
<th>Fellow Category</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>American Pharmacists Association APPM</td>
<td>Fellow</td>
</tr>
<tr>
<td>2</td>
<td>American Society of Consultant Pharmacists</td>
<td>Fellow</td>
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<tr>
<td>3</td>
<td>American Pharmacists Association APRS</td>
<td>Fellow</td>
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<tr>
<td>4</td>
<td>American Association of Colleges of Pharmacy, Academic Leadership Fellows</td>
<td>Fellow</td>
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<tr>
<td>5</td>
<td>American Association for the Advancement of Science Fellows</td>
<td>Fellow</td>
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<td>6</td>
<td>International Pharmaceutical Federation Fellows</td>
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<td>7</td>
<td>International Society of Pharmacometrics Fellows</td>
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<td>8</td>
<td>Society of Critical Care Medicine Fellow</td>
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<td>12</td>
<td>American College of Neuropsychopharmacology</td>
<td>Fellow</td>
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<td>13</td>
<td>American Society of Transplantation</td>
<td>Fellow</td>
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<td>14</td>
<td>Infectious Diseases Society of America</td>
<td>Fellow</td>
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**OUR PROGRESSIVE JOURNEY CONTINUES.**

FOLLOW US AT PHARMACY.BUFFALO.EDU