HERE IS WHERE GREAT HEALTH CARE LEADERS ARE CREATED
THE UB SCHOOL OF PHARMACY AND PHARMACEUTICAL SCIENCES IS WHERE WORLD-RENOWNED RESEARCHERS AND NATIONALLY-RECOGNIZED EDUCATORS AND CLINICIANS:

- create innovative learning communities
- awaken intellectual curiosity
- challenge scientific boundaries

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
- **1902**: Accreditation by the American Council of Pharmaceutical Education
- **1933**: Four-year Bachelor of Pharmacy degree
- **1950**: PhD in Pharmaceutical Chemistry
- **1952**: First UB School of Pharmacy and Pharmaceutical Sciences Dual Degree: BS/MBA
- **1962**: First clinical pharmacokinetics lab in the United States
- **1972**: Department of Biopharmaceutics established by Gerhard Levy, father of pharmacodynamics
- **1987**: Pharmacotherapy Research Center and Core Analytic Lab created to investigate HIV/AIDS and other infectious diseases
- **1992**: Smart Pill developed and patented by professor emeritus Jerome Schentag
- **1995**: Clinical Research Program for pharmacy student research leaders
- **1998**: Center for Pharmacokinetics and Pharmacodynamics and Center for Protein Therapeutics
- **2002**: Scholars Program for pharmacy student scholarly leaders
- **2008**: Ranked #1 pharmacy school in New York State and No. 14 in U.S. by U.S. News & World Report
- **2012**: Systems Pharmacology Initiative
- **2015**: Global Health Outreach Program
- **2020**: Honors/Satisfactory/Unsatisfactory PharmD grading system
- **2021**: FDA approval of first anti-FcRn agent, a class of autoimmune drugs innovated by the Balthasar Lab
- **2022**: Systems Pharmacology Initiative
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.

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### 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.

<table>
<thead>
<tr>
<th>$1M+ Grants</th>
<th>OVER 50% of tenure track faculty have $1 million+ grants (13 of 24 tenure track faculty)</th>
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</thead>
<tbody>
<tr>
<td>19 grants by 13 faculty</td>
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<table>
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<tr>
<th>$5 Million+ Leaders</th>
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<tbody>
<tr>
<td><strong>$18 Million</strong></td>
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<tr>
<td>Gene Morse, PharmD, SUNY Distinguished Professor: Drug Development, ID/HIV</td>
</tr>
</tbody>
</table>
## High Impact Funding

High impact funding drives our research core.

### Top Funded Projects

<table>
<thead>
<tr>
<th>Funding Amount</th>
<th>Project Description</th>
<th>Sponsor(s)</th>
<th>Principal Investigator(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$14 Million</td>
<td>NIAID, Clinical Pharmacology Quality Assurance ID/HIV</td>
<td>Multiple sponsors, Center for Protein Therapeutics</td>
<td>Joseph Balthasar, PhD</td>
</tr>
<tr>
<td>$9.6 Million</td>
<td>$14 Million</td>
<td>NIAID, Clinical Pharmacology Quality Assurance ID/HIV</td>
<td>Gene Morse, PharmD</td>
</tr>
<tr>
<td>$4 Million</td>
<td>NIA, Aging, Polypharmacy, and Neurotoxicity in Adults Living with HIV</td>
<td>Joseph Balthasar, PhD</td>
<td></td>
</tr>
<tr>
<td>$3.9 Million</td>
<td>NIAID, Novel Strategies for Antibiotic Combinations to Combat Gram-negative Superbugs</td>
<td>Brian Tsuji, PharmD</td>
<td></td>
</tr>
<tr>
<td>$3.5 Million</td>
<td>NIA, Age and Race Influences on Immunosuppression After Renal Transplant</td>
<td>Kathleen Tornatore, PharmD</td>
<td></td>
</tr>
<tr>
<td>$3.8 Million</td>
<td>NIAID, Novel Combination Therapies to Combat Hypermutable Carbapenem-Resistant P. aeruginosa</td>
<td>Brian Tsuji, PharmD</td>
<td></td>
</tr>
</tbody>
</table>

## 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.

NEW YORK STATE FACULTY INVESTMENT
$1.4 million faculty hiring

UB BUILDING INTERDISCIPLINARY EXCELLENCE
$1.2 million start up support

UB STRATEGIC INVESTMENT: $865,000 develop postgraduate pipelines

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
- 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.*

#5 SCHOOL
UB Pharmacy and Pharmaceutical Sciences

#6 AUTHOR
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.

DDDE Core Areas
- Drug Discovery and Design
- Drug Delivery
- Quantitative Systems Pharmacology
- Translational Therapeutics

DDDE Goals
- Federal Funding: Enhance and expand competitiveness
- Pharma and Biotechnology: Develop new research and training partnerships
- Interdisciplinary Training Grants: Create new platforms
- Doctoral Degrees: Increase number granted
- Reputational Advantage: Increase awareness of exceptional UB research

DDDE HUB

Drug Discovery and Design
Drug Delivery
Quantitative Systems Pharmacology
Translational Therapeutics
INTELLECTUAL INNOVATION

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

INTERNATIONAL AND NATIONAL

1 National Academy of Sciences Member
   Gerhard Levy: first PharmD inducted

2 International Pharmaceutical Federation
   1 Høst-Madsen Medal
   1 Lifetime Achievement Award

3 Fulbright Scholar Program

4 American Society for Clinical Pharmacology and Therapeutics
   1 Malle Jurima-Romet Mid-Career Leadership Award
   1 William B. Abrams Lecture
   2 Oscar B. Hunter Career Awards in Therapeutics
### Awards and Recognitions, continued

#### INTERNATIONAL AND NATIONAL

<table>
<thead>
<tr>
<th>1</th>
<th>National Science Foundation CAREER Award</th>
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<tbody>
<tr>
<td>3</td>
<td>American College of Clinical Pharmacy</td>
</tr>
<tr>
<td></td>
<td>1 Therapeutic Frontiers Lecture</td>
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<tr>
<td></td>
<td>2 Russell R. Miller Awards</td>
</tr>
<tr>
<td>1</td>
<td>International Society for the Study of Xenobiotics New Investigator Award</td>
</tr>
<tr>
<td>3</td>
<td>American Association of Pharmaceutical Scientists</td>
</tr>
<tr>
<td></td>
<td>3 Distinguished Service Awards</td>
</tr>
<tr>
<td>9</td>
<td>American Association of Colleges of Pharmacy</td>
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<tr>
<td></td>
<td>4 New Investigator Awards</td>
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<tr>
<td></td>
<td>5 Volwiler Research Achievement Awards</td>
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<tr>
<td>1</td>
<td>American Society for Pharmacology and Experimental Therapeutics</td>
</tr>
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<td></td>
<td>Early Career Award</td>
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<tr>
<td>1</td>
<td>Argentine Society of Genetics Medal of Honor</td>
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### STATE UNIVERSITY OF NEW YORK (SUNY)

| 4 | SUNY Distinguished Professors |
| 4 | SUNY Chancellor’s Awards for Excellence in Teaching |
| 6 | SUNY Chancellor’s Awards for Excellence in Scholarship and Creative Activity |
| 2 | 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 Exceptional Scholar Awards for Young Investigators |
| 7 | UB Exceptional Scholar Awards for Sustained Achievement |
| 6 | UB Teaching Innovation Awards |

24 25
### Distinctiveness Fellows

<table>
<thead>
<tr>
<th>9</th>
<th>American Association for the Advancement of Science Fellows</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>American Association of Pharmaceutical Scientists Fellows</td>
</tr>
<tr>
<td>1</td>
<td>American Society of Consultant Pharmacists Fellow</td>
</tr>
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<table>
<thead>
<tr>
<th>2</th>
<th>International Pharmaceutical Federation Fellows</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>American Society of Transplantation Fellow</td>
</tr>
<tr>
<td>6</td>
<td>American Pharmacists Association APRS Fellows</td>
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<table>
<thead>
<tr>
<th>3</th>
<th>International Society of Pharmacometrics Fellows</th>
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<tbody>
<tr>
<td>1</td>
<td>Infectious Diseases Society of America Fellow</td>
</tr>
<tr>
<td>1</td>
<td>American Pharmacists Association APPM Fellow</td>
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<tr>
<th>10</th>
<th>American College of Clinical Pharmacy Fellows</th>
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<tbody>
<tr>
<td>1</td>
<td>Society of Critical Care Medicine Fellow</td>
</tr>
<tr>
<td>4</td>
<td>American Association of Colleges of Pharmacy, Academic Leadership Fellows Program</td>
</tr>
</tbody>
</table>

1 American College of Neuropsychopharmacology Fellow

OUR PROGRESSIVE JOURNEY CONTINUES.

FOLLOW US AT PHARMACY.BUFFALO.EDU