A thriving ACPHS claims the space at the intersection of the basic sciences, clinical sciences, and population health sciences.
THREATS ARE CHALLENGING TIMES FOR COLLEGES AND UNIVERSITIES.

The combination of rising operational costs and anemic enrollment growth have forced many schools to take actions that a few years ago were unthinkable. These range from workforce reductions to the elimination of academic programs and, in some cases, mergers or closures.

At ACPHS, we are fortunate to have a tradition of fiscal control that gives us a strong foundation to withstand the current pressures on academia. We also are fortunate to have a history of student success that presents our students with strong career opportunities and has led to ACPHS graduates earning salaries that are currently ranked third highest in the country on the College Scorecard.

We are, however, not immune to the forces reshaping higher education. As we determine the path forward in this increasingly competitive landscape, it is not sufficient to consider how we will survive as an institution. Rather, we must think instead about how we will thrive.

This is an especially opportune time for us to consider how we move to the next level.

The basic sciences continue to move forward at an unprecedented pace, expanding our knowledge of human biology at the biochemical, cellular, and organismal levels. The growth of our knowledge on complex disease states continues unabated.

The historic advances in the basic sciences come at a time when we are also seeing an incredible impact of technology on the clinical and population health sciences.

Medical devices and diagnostics are being developed that can monitor the physiological state of a patient in real-time, providing a comprehensive snapshot of an individual’s state of health. These developments, in combination with a deeper understanding of genomics, are accelerating the mainstream adoption of precision medicine. Rapid genotyping technologies are bringing the promise of pharmacogenomics (tailoring a therapy to an individual’s genetic makeup) within reach.

Information technology and informatics are also ushering in a new era in population health sciences where electronic health records can be mined to better understand the efficacy of treatments over large patient populations. But these big data approaches can do more than give us insights into efficacy. They can also introduce economics into the process and ultimately help determine how to balance the best therapy with cost effectiveness.

These are not short term trends that will quickly fade away. The future of medicine and health care practice will be driven by the integration of the basic sciences, clinical sciences, and population health sciences. To be successful, our students must experience coursework and a research environment that integrates all three into robust programs of study.

In the following Report, you will find articles highlighting people, projects, and programs that are advancing us in this direction. You will also “listen in” on a roundtable discussion about cancer that illustrates how knowledge from each of these core areas contributes to our understanding of this complex disease and our pursuit of a cure.

So what does a thriving ACPHS looks like? It is an institution that claims the space at the intersection of the basic sciences, the clinical sciences, and the population health sciences – both in terms of research and education.

We are educating the next generation of health care problem solvers, and we need to equip them with the tools for success. We are looking to thrive in an evolving health care and health science environment, and this requires that we embrace a future where we integrate basic, clinical, and population sciences.
“Being at ACPHS, I feel like I have returned to my roots in the pharmaceutical sciences.”
LIKE MANY SONS WITH REBELLIOUS STREAKS, JIM GALLO, PH.D. was determined not to follow in his father’s footsteps. And as often happens in these scenarios, dad had the last laugh. Sort of.

Dr. Gallo is Professor and Chair of the Albany Campus’ Department of Pharmaceutical Sciences. He joined the College in 2016 following stops at a number of high profile universities and research institutes, but his path here was anything but predictable.

He grew up in Wisconsin where his father owned and operated Gallo’s Pharmacy. He spent a lot of time in the pharmacy where he helped out as a stock boy and ran errands, but he never envisioned a career for himself in pharmacy.

He would eventually enroll as a student at the University of Wisconsin, but after three years he decided it was time for a change. He had accumulated 90 credits, including an impressive number of courses in math and science, but he felt like he was “drifting.”

“I had piled up all of these credits, but practically speaking, I didn’t have a major. I knew what pharmacy was about, and I thought that might give me the focus I was seeking. I had a friend who went to Boston College, so I decided to move to Boston and enroll at Massachusetts College of Pharmacy.”

After earning his pharmacy degree, he returned home to work in his father’s pharmacy. But he couldn’t shake the idea of pursuing a career in clinical pharmacy after “catching the bug” as a student at MCP.

He enrolled at the University of Florida, one of the few schools at the time to offer a Doctor of Pharmacy program, which existed then only as a post-baccalaureate option. He quickly fell under the wing of some faculty members doing research in pharmacokinetics. Almost immediately something clicked for him. “I knew in my first year at Florida that I wanted to do my Ph.D. in this field,” he says.

That’s exactly what he did, earning his Ph.D. in pharmacokinetics from the University of Arizona before heading to the University of Georgia as an Assistant Professor. It proved to be a good entrée point into academia, but he left after seven years in pursuit of a more research intensive environment.

He found that at Fox Chase Cancer Center in Philadelphia where the seeds would be sown for the rest of his career work. “At the time, there were 70 primary investigators working at the Center. I had my own grants, but I was also able to collaborate with physicians doing phase one clinical trials. It was the ideal environment for a young researcher like myself.”

While working at the University of Georgia, Dr. Gallo had collaborated with a faculty member on a number of grants related to anti-HIV drug research. “One of the concerns about anti-HIV drugs is do they get into the brain. I started to become more interested in this area, and since I was working in a cancer center, I thought I should also be studying brain tumors,” he says.

He subsequently did a sabbatical with a brain tumor doctor at Northwestern University, and he has largely dedicated himself to the study of brain cancer ever since, having completed three NIH grants in this area in the past four years.

Dr. Gallo’s research utilizes a number of the same assays that are used for drugs for other cancers, but he also screens for blood-brain barrier penetration, a critical factor in the efficacy of brain cancer drugs. “If we have a promising drug, we do a pre-clinical model in a mouse to look at the pharmacodynamics and pharmacokinetics. Unlike many other programs, we then scale our models to humans and make predictions as to how the drugs may behave in the body and which patient populations are most likely to benefit from the drug. This is a form of precision medicine.”

Of course, as department chair, he must balance his research projects with his other responsibilities as the leader of a ten person (and growing) department. “I’m working to create an environment that provides faculty with the time and resources they need to develop their research programs. As their research flourishes, that will also mean more opportunities for students in our bachelor’s and master’s programs in Pharmaceutical Sciences,” he says.

There’s also the matter of recruiting new faculty and managing the other administrative tasks that come with the position. It’s a full plate, but he doesn’t seem to mind. “Being at ACPHS, I feel like I have returned to my roots in the Pharmaceutical Sciences,” he says. No doubt his father would be proud.
IF YOU ARE A SCIENTIST DOING RESEARCH ON HUMAN HEALTH, your number one target for funding is likely the National Institutes of Health (NIH).

NIH is the largest public funder of biomedical research in the world, but NIH supported grants are also the most competitive. NIH received 54,220 research project grant applications in fiscal year 2016, with the overall success rate for funding being less than 20%.

Due to the volume of applications and the comparative scarcity of funding dollars, all grants submitted to NIH undergo a demanding peer review process.

The first level of review is carried out by a Scientific Review Group composed primarily of non-federal scientists. The second level of review is typically performed by the relevant Institute and Center National Advisory Councils (NIH is made up of 27 institutes and Centers), but in some instances, NIH may rely on boards made up of scientific and public representatives.

The rigor associated with the review process means that NIH grants not only carry with them a level of prestige, they serve as validation for the quality and importance of a given research project.

So when two ACPHS faculty members – Associate Professor Meenakshi Malik, Ph.D., and Assistant Professor Tim LaRocca, Ph.D. – were each awarded $480,000 NIH grants within a three-week span in December 2016, it marked an extraordinary accomplishment for the College. It was made even more noteworthy by the fact that Drs. Malik and LaRocca are both members of the same department, the Department of Basic and Clinical Sciences.

The greatest beneficiaries of these grants, however, may be ACPHS students, particularly those in the Bachelor’s program in Microbiology and the Master’s program in Molecular Biosciences. That is because both grants, which are categorized by NIH as R15’s, come with the requirement that the principal investigators use the funding to help “expose students to research.”

Dr. Malik’s grant is the renewal of a previously funded NIH grant. It will allow her to continue her study of Francisella tularensis, a deadly bacterium that has been classified by the Centers for Disease Control as a Category A bioterrorism agent.

Mentoring students is nothing new for Dr. Malik; she has a long history of integrating students into her lab. Over the three-year period of her previous NIH grant, she authored six publications in peer reviewed journals that included Molecular Microbiology and the Journal of Biological Chemistry. Five different ACPHS undergraduate and graduate students were named co-authors on these publications.

Dr. LaRocca joined the College in January 2015, and this represents his first NIH grant. The focus of his project is to gain a deeper understanding of the process by which red blood cells die, and with this knowledge, work to improve treatments for patients suffering from bacterial blood infections and other blood related disorders.

Dr. LaRocca already had ACPHS students working in his lab, and this NIH grant will enable more students to gain meaningful research experience at both the undergraduate and graduate levels.

As the College continues to build out its capabilities in the Basic Sciences, grants such as these will play a critical role in supporting those efforts while also providing excellent opportunities for students to engage in cutting edge research.
Meenakshi Malik’s and Tim Larocca’s new NIH grants will help train the next generation of research scientists.
FOR STUDENTS SEEKING TO DIFFERENTIATE THEMSELVES
in the eyes of future employers and graduate schools, a master’s degree is an excellent option.

Albany College of Pharmacy and Health Sciences introduced its first master’s degree program in the late 2000’s and now offers five such programs. Each one has been developed as a complement to, or extension of, an existing undergraduate program(s) which means that there are a number of intentional synergies that exist between the various B.S. and M.S. programs.

ACPHS has made the pursuit of a master’s degree easier through the availability of four dual degree programs. Dual degree programs allow students to receive a bachelor’s and master’s degree in five years instead of six — a structure that helps them save both time and money as they prepare for the next step in their careers.

The newest of the College’s dual degree programs was introduced in February 2017. It combines a Bachelor’s in Microbiology and a Master’s in Molecular Biosciences.

This dual degree offering has been designed to provide students with a stronger foundation in research, and includes a research rotation in Year 4 followed by a written thesis and defense in Year 5.

By attending just one extra year of school, dual degree graduates gain a competitive advantage that will not only provide a boost to their immediate post-graduate plans, but may also be viewed favorably as they seek to advance their careers in the future.

It’s a combination that is tough to beat which is why an increasing number of students are being drawn to these programs.

TWO DEGREES ARE BETTER
TWO DEGREES ARE THAN ONE

B.S. in Biomedical Technology / M.S. in Cytotechnology and Molecular Cytology

B.S. in Biomedical Technology / M.S. in Clinical Laboratory Sciences

B.S. in Pharmaceutical Sciences / M.S. in Pharmaceutical Sciences

B.S. in Microbiology / M.S. in Molecular Biosciences
BRIDGING
THE DIVIDE

“WE NEED TO GET MORE PEOPLE FAMILIAR WITH THE SKILLS AND KNOWLEDGE THAT PHARMACISTS POSSESS.”
ON ANY GIVEN DAY, ASSOCIATE PROFESSOR OF PHARMACY PRACTICE KATIE CARDONE, PHARM.D., BCACP, may be found working with chronic kidney disease patients, conducting medication therapy management consultations, developing online courses for the College’s nephrology concentration, publishing articles, delivering presentations, precepting students, and more. All of which makes it hard to believe that it took three years of school to convince her that pharmacy was the right career choice.

“I had been asked by my high school guidance counselor to consider pharmacy, but at the time, I was leaning towards engineering. My image of what a pharmacist did was the shopkeeper in the Norman Rockwell painting. That wasn’t something that appealed to me, which is why ACPHS was the last school I visited when I was looking at colleges,” she says. But when she arrived on campus, she found herself attracted to the close-knit feel of the College and the strong focus on science, which is a hallmark of the pre-pharmacy curriculum. She decided to enroll. Despite positive early experiences at the College, she considered transferring after each of her first two years. Everything changed after her third year when she began working as a pharmacy intern at Price Chopper. “I really enjoyed the opportunity to work with patients in a community setting. It was also interesting to watch the transition between basic sciences and clinical applications play out in the pharmacy. I liked that bridge.”

From that point on, there was no turning back. With her commitment to ACPHS and her career path now solidified, Dr. Cardone immersed herself in the College and her future profession. She joined the soccer team, worked in the research lab of Professor Bob Levin, and applied for the Early Patient Oriented Care (EPOC) program, which is where she developed her interest in nephrology.

“Before starting the program, students were asked to rank the areas of interest to them. I put dialysis last on the list, and, of course, that’s where I ended up,” she laughs. “[Professor] George Bailie said to me, ‘It’s a good character builder to get up at 6 am and go to dialysis.’ I had my doubts, but by the end of my third semester in the program I had developed a real interest in nephrology.”

Following graduation, she did a two-year fellowship in nephrology with Dr. Harold Manley, a former ACPHS faculty member. “The fellowship was the synthesis of my previous experiences in community pharmacy, nephrology, and research. It combined everything that I enjoyed doing. It’s what ultimately led me to academia because I saw it as the best opportunity to continue my involvement in all of these aspects of pharmacy.”

Fast forward to the present day and Dr. Cardone is now mentoring her own post-graduate trainees. She started a nephrology pharmacy residency two years ago – one of only two such residencies in the country – and recently received accreditation by the American Society of Health-System Pharmacists (ASHP). She is also using her research as a platform to bridge pharmacy with other fields such as Public Health. One such project is a collaboration with Associate Professor Wendy Parker in the ACPHS Department of Population Health Sciences. The two are exploring the impact of pharmaceutical care services such as medication adherence and health literacy on the outcomes of patients suffering from chronic kidney disease. The collaboration has resulted in external grant funding and academic publications.

For someone who once had to be sold on the profession of pharmacy, Dr. Cardone has emerged as one of its strongest advocates and a role model for future pharmacists. She believes that the profession has just scratched the surface of its potential, and she hopes to see its profile further elevated in the eyes of the public.

“Within our own profession, we know that we are valuable members of the health care team. But much of the public does not know about the pharmacist’s education or what they do beyond dispensing. Even within the health care team, we need to get more people familiar with the skills and knowledge that pharmacists possess,” she says. “If we are not vocal about our capabilities and contributions, how will anybody know?”
SCHENECTADY COUNTY IS BATTLING AN ASTHMA PROBLEM, and the Asthma Coalition of the Capital Region is looking to ACPHS, and specifically its students, for assistance.

According to the latest data from the New York State Department of Health, Schenectady County ranks 4th among 57 counties in the state (excluding New York City) with 78.1 asthma emergency department visits per 10,000 residents.

Following the 2016 opening of College Hometown Pharmacy in the Hometown Health Centers clinic in Schenectady, the Asthma Coalition of the Capital Region (ACCR) approached the College for help with its efforts to improve asthma care.

ACPHS Assistant Professor See-Won Seo explains the challenges inherent in asthma treatment: “There is so much that needs to be covered related to asthma devices and medications, and the provider doesn’t always have the time to walk through everything with the patient. Having a pharmacist available to follow up and ‘close the loop’ can go a long way towards improving outcomes with asthma patients.”

Through the partnership with ACCR, student pharmacists from the College who rotate through Hometown Health Centers now receive daily reports to help identify patients in the clinic who may benefit from additional asthma counseling. Indicators flagged in these reports may include one or more of the following:

- Recent asthma-related ER visits or hospitalizations
- Asthma Control Test score ≤ 19, indicating poor control
- Failure to pick up controller asthma medications from the pharmacy
- Excessive refills of a rescue inhaler from the pharmacy

Once a patient is identified, the students meet with the patient after regularly scheduled appointments with their provider to review their medications and ensure the patient knows how to properly use their device(s). As part of the meeting, students demonstrate for each patient how their device works and then watch to see that the patient is using it properly. The students also provide disease state education, asthma action plans, and trigger avoidance/identification. Since the program has started, they’ve already noticed instances where providers have increased dosing when, in fact, the problem stemmed from the patient not taking the medicine correctly.

“The area where we feel there is the most opportunity for rapid improvement is with the development or update of a patient’s Asthma Action Plan,” says ACPHS Assistant Professor Jacqueline Cleary, whose practice site is in the Hometown Health Centers clinic. “What are the medications they should and should not be taking? When should they know to increase their albuterol based on their symptoms? When is the right time to call the doctor or seek emergent care? Our job is to make sure they know the answers to these questions.”

As the program continues to grow, the College plans to integrate 10-15 pharmacy students in their second professional year (P2) to assist with asthma education. When these students become P3’s, they will train a new class of P2’s and that cycle will be repeated each year.

Dr. Seo would eventually like to see students receive permission to visit patients’ homes and shadow Healthy Neighborhoods Program professionals. “Pharmacists tend to focus on the medications which can cause them to overlook factors in the patient’s home environment that may be exacerbating their asthma such as smoking or pet dander. When it comes to asthma care, it is important to understand the big picture so that you can ask the right questions and direct the patient to the most effective resources.”
ACPHS students at College Hometown Pharmacy are learning how they can help reduce the impact of asthma on residents of Schenectady County.
IN THE FIELD OF HEALTH CARE, MUCH time is spent discussing and analyzing treatment. What is the best course of therapy? Is the patient capable of adhering to the therapy? Is the prescribed therapy the most cost effective option? But before any conversation can take place about how to best treat a patient, there first needs to be a diagnosis, and in approximately 70% of situations, a patient’s diagnosis is determined after consulting the results of a laboratory test(s).

Advances in technology over the past two decades have greatly expanded the range of tests available to providers. There are now approximately seven billion diagnostic tests performed each year in the United States alone!

As the amount and sophistication of these tests have grown, the need for clinical laboratory science professionals to evaluate and interpret the results has increased proportionately. Yet, despite these developments, the number of academic programs for laboratory professionals has been declining since the early 1990’s.

The nation’s labs need to fill more than 7,000 jobs annually, but U.S. clinical laboratory education programs are producing approximately 5,000 qualified laboratory professionals each year.

The math is pretty simple. Every graduate from an accredited program is going to have a job offer, and in some cases, multiple offers. As ACPHS looks to the future, its continuing commitment to the laboratory sciences (the College offers both B.S. and M.S. degrees in Clinical Laboratory Sciences, in addition to an M.S. in Cytotechnology and Molecular Cytology) positions it well to help address an important need in the nation’s health care system while providing opportunities for students in a field with excellent career prospects.
“CULTURES DON’T JUST HAPPEN. THEY ARE FORMED.”
WALK INTO THE OFFICE OF COLLEEN MCLAUGHLIN, PH.D., and certain things strike you immediately – an array of multi-colored post-it notes affixed to the wall, figurines of a tortoise and hare placed conspicuously on her desk, and a sign that says, “Culture eats strategy for lunch.”

Dr. McLaughlin joined the College in February 2017 as the founding chair of the Department of Population Health Sciences. Prior to coming to ACPHS, she spent 25 years at the New York State Department of Health (DOH) where she worked in multiple bureaus of the department including the Bureau of Sexually Transmitted Disease Prevention and Epidemiology, the Office of Primary Care and Health Systems Management, the Bureau of Chronic Disease Epidemiology and Surveillance, and the Bureau of Cancer Epidemiology.

The Department of Population Health Sciences was formed in spring 2016 as part of a strategic realignment for the College. “We created the department to help facilitate collaborations between the School of Pharmacy and Pharmaceutical Sciences and the School of Arts and Sciences,” explains ACPHS Provost Tarun Patel, Ph.D. “In addition to the six core faculty members in the department, there are three faculty members with joint appointments, and we anticipate that number will grow. These inter-school and inter-disciplinary collaborations are going to help advance teaching and research at the College and ultimately enrich the academic experiences of students across all of our programs.”

As the founding chair, Dr. McLaughlin will play a key role in building the department and helping establish its identity. She’s more than up to the task.

“I strongly believe that cultures don’t just happen, they are formed,” she says. “It starts with how people treat each other, how they communicate, and how they lead. It’s important to me that the faculty members here feel like they are part of a community, not simply members of a department.”

“That’s the reason for the ‘Culture Eats Strategy for Lunch’ sign. If you don’t have the right culture in place, even the best strategies are destined to fail.”

The Department of Population Health Sciences is home to the B.S. in Public Health (introduced in 2016) and the M.S. in Health Outcomes Research and Informatics, two programs with natural synergies that haven’t been fully tapped.

“Prior to my arrival, the faculty did an excellent job of developing and launching these two academic programs, which are still relatively new,” says Dr. McLaughlin. “I’m looking to build upon the foundation they have established by adding what I have learned through my experiences in the workplace. Together, we will ensure that our students graduate with the skills needed to excel in the field of public health.”

Which leads us back to those post-it notes. These represent the vision for a revamped Public Health curriculum, one that expands the range of coursework while still enabling students to specialize in their areas of interest. One of the new courses will be a Seminar in Public Health, a course for juniors that Dr. McLaughlin will teach this fall.

“I have always enjoyed working with students. I taught epidemiology in SUNY Albany’s School of Public Health for seven years, and I planned to do more teaching after I retired,” she says. “Now I have an opportunity to do it sooner!”

In addition to revisiting the curricula of the Public Health and Health Outcomes programs, Dr. McLaughlin is working with faculty to codify a research agenda for the department. “Our research vision for the department must be one that aligns with President Dewey’s vision for the College,” she says. “Making these linkages between our work and the strategic goals of the institution has been a fun exercise for us and something that I really enjoy.”

With so much to do for the naturally energetic McLaughlin, it can be difficult to know where to start. Enter the tortoise and the hare. They serve as reminders of the book Thinking Fast and Slow by Nobel Prize winner Daniel Kahneman. The book explores the forces that govern our thoughts and actions, helping determine when a quick decision is needed and when more deliberate thought is advised.

Looking ahead, Dr. McLaughlin has no shortage of ideas for the department including plans to develop a five-year dual degree program in Public Health and Health Outcomes and exploring opportunities to offer continuing education programming for public health professionals. But that’s a whole other set of post-it notes.
A 2015 ARTICLE FROM THE JOURNAL PATIENT PREFERENCE AND ADHERENCE states that an estimated half of chronic disease medications are not taken as prescribed. Worse yet, studies have linked non-adherence among sufferers of chronic diseases to poorer treatment outcomes and the progression of disease symptoms and complications.

When the disease is type 1 diabetes mellitus (T1DM) and the patient is an adolescent, the consequences of non-adherence can be life altering. Complications from poorly controlled, long-standing T1DM include heart disease, eye damage, pregnancy complications, and kidney disease. Persistent non-adherence beginning in early adulthood can lead over time to the early onset of these conditions.

Associate Professor of Population Health Sciences Wendy Parker, Ph.D., and Associate Professor of Pharmacy Practice Katie Cardone, Pharm.D., BCACP, want to prevent such scenarios from taking place. The two faculty members, along with ACPHS students from the Public Health and Pharm.D. programs, are collaborating on a project that seeks to identify the risk factors that may inhibit successful medication self-management among adolescents suffering from T1DM.

Since T1DM (sometimes referred to as Juvenile Diabetes) is usually diagnosed in childhood, parents or other caregivers naturally play a significant role in managing the child’s medications. Responsibilities may include obtaining diabetic supplies, administering medications, managing nutrition, obtaining medication-related information, recognizing medication problems, and negotiating insurance plans.

Parents begin to play a lesser role in medication-related care as T1DM children move into adulthood, and it is during this transition where the threat of non-adherence increases. Many young adults struggle in particular when they leave home for the first time (e.g., to go away to College) and have to shoulder more of the responsibilities for their own health.

But which adolescents are most at risk and what types of interventions can help avoid adverse health events? Exploring these questions will be the focus of the project, which is being supported by a grant from The John Faunce and Alicia Tracy Roach Fund and administered by the Community Foundation of the Capitol Region.

For the initial phase of the project, Drs. Parker and Cardone will be partnering with the local chapter of the Juvenile Diabetes Research Foundation (JDRF) to do one-on-one interviews with adolescent T1DM patients and parents. Following the interviews, the research team will then compare the findings with data available in the T1D Exchange Registry, a repository containing clinical, laboratory, and patient-reported data from over 28,000 patients across 75 U.S.-based health clinics.

Using mathematical modeling, Drs. Parker and Cardone will seek to isolate potential risk factors for non-adherence across different patient profiles. As Dr. Parker notes, identifying the risk factors is only part of the solution. “Then the challenge becomes, how do you craft the messages to help bring attention to these risks? How does this population want to receive those messages? How do you get them to trust you? It is a lot to consider which is why getting perspectives from multiple disciplines is often needed to determine the best way to attack the problem.”

Adds Dr. Cardone, “The ultimate goal of the project is to encourage proper self-management of medications for these adolescents and prevent long-term, negative health consequences that may result from non-adherence.”
PREVENTION

COLLABORATIVE PROJECT SEEKS TO REDUCE THE RISKS OF NON-ADHERENCE IN YOUNG ADULTS WITH TYPE 1 DIABETES.
THE BACHELOR’S PROGRAM IN PUBLIC HEALTH is the latest undergraduate degree offering from the College, having received approval from the New York State Office of Higher Education in spring 2016.

The Public Health program evolved from the College’s B.S. program in Health and Human Sciences (HHS) which launched in 2009. The Public Health program expands from the core HHS program to integrate a wider variety of coursework in areas that include social science, applied science, epidemiology, statistics, and research.

The B.S. in Public Health curriculum – which is based on the accreditation standards published by the Council on Education for Public Health – requires students to select one of two tracks: Community Health or Health Analytics. Each track culminates with a capstone project (typically an internship or research project) in which students focus on an aspect of public health that aligns with their career interests.

“As a college centered around human health, the addition of a Bachelor’s program in Public Health is a natural extension of our academic offerings,” says Associate Professor Wendy Parker, Ph.D., who serves as the Director of the Public Health program. “By leveraging our collective strengths as an institution, we have created a true interdisciplinary program that educates students to become scientifically grounded and socially engaged.”

The Bureau of Labor Statistics also sees great opportunities in the field of Public Health. Their employment forecast for Public Health and related areas states, “Growth will be driven by efforts to improve health outcomes and to reduce health care costs by teaching people about healthy habits and behaviors and utilization of available health care services.”
When President Richard Nixon signed the National Cancer Act on December 23, 1971, it kicked off what became popularly known as the “War on Cancer.”

It’s been nearly 50 years since the bill became law, and while progress has undoubtedly been made in the search for better treatments and outcomes, it quite likely has fallen short of the expectations of those who enacted the legislation.

Cancer remains the leading cause of death worldwide and is second only to heart disease in the U.S. According to the National Cancer Institute, approximately 39.6% of men and women will be diagnosed with cancer at some point during their lifetimes. That’s 2 out of every 5 people walking the planet.

But there are also encouraging signs. From 2004-2013, the overall cancer death rate in the United States fell by 13% as the number of cancer survivors increased. The number of people in the United States living beyond a cancer diagnosis reached nearly 14.5 million in 2014 and is expected to rise to almost 19 million by 2024.

Yet, each piece of good news seems to be followed by one that casts doubt on our progress against this relentless disease. So where are we making the most gains? Where are we falling behind? Is a cure possible someday, and for that matter, what does a cure even look like?

For insights to these and other questions, we gathered a roundtable of ACPHS faculty from the basic sciences, clinical sciences, and population health sciences to share their perspectives on the state of cancer care today and what the future may have in store.

PATEL: Here’s the problem. We have 25,000 genes in our bodies – many of which are involved in cancer. You can identify and block certain cancer targets to effectively create a traffic jam, but the cancer cells are highly adaptive, and they know how to maneuver through the traffic. Cancer is like an aggressive driver who finds a back alley to get around the problem. When it heads down one of these alleys is when it’s very hard to treat.

MOUSA: This is an opportunistic disease. Tumors operate independently in the body. If there are enough cancer cells, they are able to evade the immune system and build their own blood supply network. This is what allows the cancer to grow and spread, and that is when it becomes difficult to control.

PETERS: I feel that statistic is a bit misleading. Survival rates for some types of cancer have improved significantly through the years. Chronic Myeloid Leukemia (CML) is a great example. As a result of new oral targeted therapies that were approved in the early 2000’s, CML patients are now living nearly as long as non-CML patients.

BURTON-CHASE: I think the best opportunities are on the prevention side. We know that 25-30% of cancer deaths are related to smoking. Another 20-25% are diet related. Some people in the field believe that as many of 90% of cancer deaths can be prevented with behavioral changes. We have put a lot of money into treatment, and we have not gotten the same returns as we have with effective prevention strategies.

PETERS: I agree. The number of preventable cancer cases is much greater than the number of positive outcomes from any drug therapy currently on the market.

LEBLANC: Cancer is such a multi-factorial disease that I don’t think you can separate these areas. They need to work together. More education is certainly needed as far as prevention is concerned. I’m also a big advocate for screening, and improving the ways we do it, so that we can diagnose the cancer while there’s still time to treat it.

PROVOST PATEL MENTIONED “PRECISION MEDICINE” WHICH IS A TERM WE HEAR A LOT ABOUT THESE DAYS. WHAT IS ITS POTENTIAL AND HOW WIDELY IS IT BEING USED TODAY IN THE TREATMENT OF CANCER PATIENTS?

MOUSA: Cytotoxic chemicals used to treat most cancers are effectively poison, so you have to be very careful about how they are distributed throughout the body. I strongly believe that to effectively eliminate the tumor you have to surprise it. That means hitting it with a “big load” of chemotherapeutic drugs, perhaps 100x the concentration that we would normally use. The only way to do this without harming the patient’s normal organs is through precision medicine where you can harness the power of nanotechnology, for example, to target the tumor and minimize the spillover to the healthy cells and organs of the body.

PETERS: Some of the newer drugs are small molecules with very specific targets. They still affect normal tissue but not to the degree that you would expect to see when you think about the traditional cytotoxic chemo experience. Knowledge of pharmacogenomics is also being adopted in the treatment of cancer, which is helping us better target which drugs will be most effective in which patients. This is
not some futuristic concept – it is something that we are using today in the clinic.

**Balaž:** This is true. Pharmacogenomics is able to tell us about factors such as the presence or absence of certain targets, transporters, or metabolizing enzymes, which can help us estimate whether a certain treatment is likely to be successful. However, there is a lot of space left between the basic pharmacogenomic information and what is taking place in the body. What is happening in the cell that changes its behavior to the type of uncontrolled growth we see in cancer? What are the differences between the drug-affected components of the cancer cell and a normal cell? This needs to be analyzed. Precision medicine takes into account knowledge about the kinetics of many different processes, but to harness its potential, we need to know more about the basic mechanisms at work.

**The 21st Century Cures Act Allocates Nearly $2 Billion for Cancer Research (This Initiative Is Referred to as the “Cancer Moonshot”). If You Were in Charge of That Money, What Types of Initiatives Would You Invest It In?**

**Leblanc:** I’d like to see more money directed to the expansion of screening programs. If we can identify biomarkers for more types of cancers, it will help us develop better targeted and tailored treatment therapies. I’d also like to see research that explores the impact of screening at younger ages. Too often we look only when there’s a problem. That’s not a screening program; that’s a diagnostic program.

**Balaž:** There is still a great need for more basic science research into the mechanisms of cancer. The pharmaceutical industry rarely does this type of research, which means government support is critical to driving it, particularly in the early stages.

**Burton-Chase:** I would invest more money in cancer education. We have a poor education system when it comes to cancer, and it is not just with the general public, but the providers as well. We have, for the first time ever, a preventive cancer vaccine (HPV). It is the only cancer vaccine that has ever been developed, yet we do not see the uptake rates that you see in other developed countries. All clinicians do not promote it in the same way. Some make it seem like a choice. We have not had a lot of major advances in cancer care, and when there is a breakthrough, we tend to do a poor job of educating people about it.

**Leblanc:** Most people hear HPV and think “women” and “cervical cancer.” However, HPV is also found in certain head and neck cancers. And it’s not just in females. It’s in males too. But that message does not always come through which underscores the fact that we are falling short on education.

**In Our Ongoing Battle with Cancer, What Is Your Greatest Cause for Hope?**

**Peters:** Seeing new classes of drugs coming to fruition and how our knowledge of the basic pathology of cancer is expanding are both reasons for optimism. That is translating to greatly improved survival in cases where we didn’t see it before. For example, when I was in residency, patients with Stage 4 lung cancer used to live six months, and now these patients can live as long as 2-5 years.

**Burton-Chase:** I would say it is patients being advocates for themselves – being more proactive with their providers, sharing more information within families. They are on a much more level playing field than in the past, and better-educated patients typically get better treatment and have better outcomes.

**Leblanc:** We have made tremendous improvements in diagnostics and finding certain cancers earlier. There used to be sites in the body that were very difficult to access like the pancreas. Now endoscopic ultrasound can get to places that weren’t easily accessible before. Endobronchial ultrasound allows us to not only reach lesions in the respiratory tract, but also the surrounding lymph nodes, which helps determine staging. These techniques have really entered the mainstream in the past 10-15 years. The ability to make earlier and more accurate diagnoses has improved outcomes for countless numbers of patients because, in most cases, the earlier you find the cancer, the more effective the treatment will be.

**Mousa:** The technological advances are remarkable. It is now about implementation and adoption. We need to find ways to accelerate the marriage between technology and practice.
WHAT GIVES YOU THE MOST CONCERN?

PETERS: I’m very concerned about prevention getting overlooked, particularly when I read reports that millennials have higher rates of colorectal cancer than Generation Xers and Baby Boomers. I’m also concerned by what seems to be increasing numbers of younger people getting diseases they shouldn’t have. There needs to continue to be epidemiological research to monitor these trends and help inform prevention efforts.

PATEL: For me, it’s the shrinking levels of government research funding in the sciences. Right now, the National Cancer Institute (NCI) funds scored grants at around the six percentile. But it’s not only that. Not every approach for treating cancer comes from NCI-funded research. Continued cuts to NIH funding will mean research on other diseases will also suffer. Sometimes it’s a breakthrough in one area of study that fuels an advance in a different field. It’s very interconnected.

MOUSA: I could not agree more. If we continue to reduce funding for scientific research, labs are going to shut down. There will be fewer new scientists. In fact, it’s happening now. When I talk to post docs today, they want to go into industry for administrative and management opportunities, not research-based faculty positions. The training and retraining that takes place in academia fosters collaborations. That would all get cut out. This would have decades and decades of deleterious effects on scientific progress and innovation.

HOW DO YOU DEFINE A CURE IN THE CONTEXT OF CANCER, AND WHAT IS THE POSSIBLE TIMELINE FOR SUCH A CURE?

BURTON-CHASE: Instead of talking about a cure, we should really be talking about remission — for how long and for whom. Optimism is important, and you certainly do not want to take that away, but you have to balance patient expectations with reality. For example, when we talk about survival rates, we mean a certain type of cancer has, say, a 40% survival rate over the next five years. We do not systematically collect and discuss data for 10, 15, 20 years out. That is not always made clear to patients, which is why we need to do a better job of having these conversations. When patients and families get information after the fact, that is when they start to feel like the health care system does not work for them.

PETERS: In the medical community, we define cure as good long term survival, but that’s not what patients want to hear or accept. People want to feel they can have control over their cancer, but it also contributes to this false sense of outcome. Patients will always ask me, “How long do I have to be on this therapy?” and I explain, “Until you have side effects you cannot tolerate or until it doesn’t work anymore.” It’s hard to have those conversations because sometimes patients think they will be able to take a pill for a month, and they will be cured. Based on what we know today, metastatic disease cannot be cured. You can’t get rid of it. But if you can manage it and keep it from spreading to vital organs, it could take on the shape of a chronic disease similar to how we now treat HIV.

MOUSA: I agree with Sarah. If we can localize the cancer and control its behavior, we can treat it like a chronic disease. I think within a decade or two we can get there with many forms of cancer therapeutics. However, that assumes we have adequate government funding for research and are able to resolve some of the related bioethical issues.

LEBLANC: For me, a cure is about moving past a one-size-fits-all approach to care and getting the patient the type of individualized treatment they need.

BALAZ: Any discussion of a cure must consider the type of cancer and how quickly it becomes mortal. A cure leads to a measurable extension of life. It’s hard to imagine for some types of cancer that we will cure them completely. Depending on the type of cancer, therapies may extend survival by 20 years or far less, but they are all beneficial.

PATEL: Five years of remission is a success, success, success. In remission, patients are checked regularly, and our monitoring continues to improve which means any future treatments are going to begin sooner and hopefully be more effective.

PETERS: If I could just add one more thing ... It’s important to keep in mind that we all have the potential to develop cancer. We all have mutations in our DNA that our bodies are trying to fix and repair right now. Mutations accumulate in our genes, but we typically can handle them. Unfortunately some people are not able to manage it for reasons that may have to do with their immune systems, genetics, environmental exposure, or something else altogether. What that trigger is and why and when it occurs – that is the million dollar question.
THE PANELISTS

STEFAN BALAZ, PH.D. is the Chair of the Department of Pharmaceutical Sciences in the ACPHS-Vermont Campus. The goal of his research is to better understand the processes affecting the fates and effects of drugs in the body in terms of drug structures and properties.

ALLISON M. BURTON-CHASE, PH.D., is an Assistant Professor in the Department of Population Health Sciences. Her primary area of research is in the behavioral aspects of cancer prevention and survivorship in families with hereditary cancer syndromes.

JENNA LEBLANC, M.S., CT (ASCP), is the Director of the Master’s in Cytotechnology and Molecular Cytology program. She also serves as the President of the American Society for Cytotechnology.

SHAKER MOUSA, PH.D., MBA, is the Chairman and Executive Vice President of the Pharmaceutical Research Institute and Vice Provost of Research. His research explores ways that nanotechnology and biotechnology can be used to improve the detection, prevention, and treatment of cancer.

TARUN B. PATEL, PH.D., is the Provost at ACPHS. He has received more than 30 externally funded grants, including 16 from the National Institutes of Health. The focus of his research is hepatocellular carcinoma, the most common form of liver cancer.

SARAH SCARPACE PETERS, PHARM.D., MPH, BCOP, is an Associate Professor in the Department of Pharmacy Practice and a board certified oncology pharmacist with a practice site at the St. Peter’s Health Partners Cancer Care Center. She is the immediate Past President of the Hematology/Oncology Pharmacy Association.


Matthew Stryker


BOOK CHAPTERS

Katie Cardone


Jacqueline Cleary

Jessica Farrell

Michael Kane


Sarah (Scarpoce) Peters

Sarah (Scarpoce) Peters

SCHOLARLY ACTIVITY REPORT

Matthew Stryker


BOOK CHAPTERS

Katie Cardone


Jacqueline Cleary

Jessica Farrell

Michael Kane


Sarah (Scarpoce) Peters

Sarah (Scarpoce) Peters

PRESENTATIONS

POSTER/PLATFORM PRESENTATIONS

Monique Bidell


Laurie Brice land
Rosa S, Brice land L. Introducing students to Pharmacy Ownership through the development of an Entrepreneurial APPE Rotation. 2016 AAPC Annual Meeting (abstract).


Katie Cardone


Brian Cowles

Jessica Farrell

Loy T, Farrell JF, Bruce SP. Pharmacist- and student-developed letters to national compendia to acquire off-label status. ASHP Midyear Clinical Meeting & Exhibition, Las Vegas, NV, December 6, 2016.

Loy T, Farrell JF, Bruce SP. Pharmacist- and student-developed letters to national compendia to acquire off-label status. ASHP Midyear Clinical Meeting & Exhibition, Las Vegas, NV, December 6, 2016.
Gina Garrison

Michael Kane

Bartelme KM, Lodise NM, December 7, 2016. Las Vegas, NV, Midyear Clinical Meeting, 2 Diabetes Mellitus. ASHP Inhibitor Therapy in Type Cotransporter-2 (SGLT-2) and Safety of Switch-Thomas Lodise

Gina Garrison

Michael Kane

Bartelme KM, Lodise NM, December 7, 2016. Las Vegas, NV, Midyear Clinical Meeting, 2 Diabetes Mellitus. ASHP Inhibitor Therapy in Type Cotransporter-2 (SGLT-2) and Safety of Switch-Thomas Lodise

Gina Garrison

Michael Kane

Bartelme KM, Lodise NM, December 7, 2016. Las Vegas, NV, Midyear Clinical Meeting, 2 Diabetes Mellitus. ASHP Inhibitor Therapy in Type Cotransporter-2 (SGLT-2) and Safety of Switch-Thomas Lodise

Gina Garrison

Michael Kane

Bartelme KM, Lodise NM, December 7, 2016. Las Vegas, NV, Midyear Clinical Meeting, 2 Diabetes Mellitus. ASHP Inhibitor Therapy in Type Cotransporter-2 (SGLT-2) and Safety of Switch-Thomas Lodise

Gina Garrison

Michael Kane
**ACPHS PRESIDENT’S REPORT**

**SCHOLARLY ACTIVITY REPORT**


Lee Anna Obos


Nimish Patel


Sandra Rosa

Rosa S, Briceland L. Introducing students to Pharmacy Ownership through the development of an Entrepreneurial APPE Rotation. 2016 AACP Annual Meeting (abstract).

Monique Bidell

Bidell M. A case of vomiting, malaise and acute injury (co-presented with Yotana Fuks and David Colman). Medical Grand Rounds, St. Peter’s Hospital, Albany, NY, December 2016.

Matthew Stryker


Bidell M. Why complete a pharmacy residency and how to prepare to be a competitive candidate (co-presented with Kate Cabral), ACPHS/NYSCHP Residency Preparation Symposium, ACPHS, Albany, NY, October 2016.


Abby Boire
Boire A. Updates in Heart Failure Therapy: What the Pharmacist Needs to Know. April 2016.

Jeffrey Brewer

Laurie Briceland

Michael Brodeur

Brodeur MR. Colonie Emergency Medical Services.

Continuing Education. November 2016.

Brodeur MR. Falls and Their Prevention: A Geriatrics and Pharmacological Imperative Fall Risk Identification and Intervention for the Community-Dwelling Older Adult. Public Health Live, SUNY School of Public Health, October 20, 2016.


Katherine Cabral

Through Thick & Thin: An Update on Anticoagulants. Continuing Education. ACPHS Cardiovascular Symposium, Albany College of Pharmacy and Health Sciences, Albany, NY, April 2016.

Katie Cardone
Cardone K. Updates In Type 2 Diabetes Management: Guideline Updates. Continuing Education (co-presented with See-Won Seo), Mohawk Valley Pharmacists Association, Utica, NY, Spring 2016.


Cardone K. Updates In Type 2 Diabetes Management: Case-Based Discussion Of Diabetes Management. Continuing Education (co-presented with See-Won Seo), Mohawk Valley Pharmacists Association, Utica, NY, December 2016.


Cardone K. Nephrology Review for the Ambulatory Care Pharmacist Review and recertification course for board certified ambulatory care pharmacists (BCACP). American College of Clinical Pharmacy Spring Conference, Phoenix, AZ, April 2016.

Jo Carreno
Carreno J. Zika Virus: Beyond the Hype. Continuing Education. Capital Area Pharmacists Society, Albany, NY.

Carreno J. The Use of Rapid Diagnostics within Antimicrobial Stewardship Programs. Continuing Education. ACPHS, Albany, NY.

Jacqueline Cleary


Giselle D’Epiro

Jessica Farrell


Gina Garrison
Garrison G. 2016 Annual CDC Immunization Updates for Adult and Infants / Children / Adolescents. AMC Internal Medicine and Pediatrics Group, Latham, NY.


Garrison G. 2016 Updates in Pharmacotherapy for Adult Dyslipidemia. Continuing Education. ACPHS Cardiovascular Update, Albany, NY.


Elizabeth Higdon
Higdon E. Calamine Compounding Workshop. Presented to high school students at TRIO event, Colchester, VT, February 2016.

Teresa Kane

David Kile

Kile D. Medication Adherence: America’s Other Drug Problem. ACPHS Pharmacy Practice Update, June 8, 2016.

Nicole Lodise

Lodise NM. Curricular Adoption and Integration of the Pharmacists’ Patient Care Process. American Association of Colleges of Pharmacy (AACP) Teachers’ Seminar, Anaheim College of Nursing, CA, July 2016.

Thomas Lodise


Polymyxins, What Do We Really Know? Allergan Medical Affairs, Jersey City, NJ, June 30, 2016.


Economics of Treating ABSSI in Different Settings of Care (satellite symposium). Making a Difference (MAD) - ID Annual Meeting, Champions Gate, FL, May 6, 2016.


Nimish Patel

Nimish Patel

Nimish Patel
Patel N. Updates in Epidemiology and Treatment of Sexually Transmitted Infections. Continuing Education. ACPHS, Albany, NY, September 2016.

Potel N. Medication Errors in HIV. Continuing Education. Telemedicine series broadcast to all New York State Department of Corrections pharmacists, Albany Medical Center HIV Clinic, Albany, NY, June 2016.


Potel N. Updates in Epidemiology and Treatment of HIV. Continuing Education. ACPHS, Albany, NY, February 2016.

Joanna Schwartz


See-Won Seo


Matthew Stryker

Alexandra Watson


Watson A. Life on Rotations, APhA-ASP student chapter meeting, ACPHS, Albany, NY, May 2016.


Katie Cardone
Principal Investigator: Wendy M. Parker
Co-Principal Investigator: Katie E. Cardone
Project: Health disparities and medication management strategies among adolescents and young adults with Diabetes Mellitus
Granter: John Faunce and Alicia Tracy Roach Fund
Amount: $24,943.36

Thomas Lodise
Project: Antibacterial Resistance Leadership Group: Minocycline PK in IC Patients
Grantor: Duke University, National Institute of Allergy and Infectious Diseases (NIAID)
Amount: $35,802
Term: December 1, 2016 - November 30, 2017

Michael Kane, Matthew Stryker, Robert Hamilton
Project: A Real World, Observational Study of Weekly Exenatide Added to Basal Insulin in Patients with Type 2 Diabetes Mellitus
Granter: AstraZeneca Pharmaceuticals, LP
Amount: $67,387
Awarded: July 2016

See-Won Seo, Jacqueline Cleary
Principal Investigator: See-Won Seo
Co-Principal Investigator: Jacqueline Cleary
Project: A System’s Approach to Reducing the Burden of Asthma in New York State
Granter: Whitney M Young Jr. Health Center
Amount: $12,800
Awarded: June 2016

Jeffrey Brewer
Fellow of the American Society of Health-System Pharmacists, 2016

Jacqueline Cleary
2016 PAINWeek Scholarship Recipient

Gina Garrison
National Secretary, Rho Chi Academic Honor Society, 2011-present

Nicole Lodise
American Association of Colleges of Pharmacy (AACP). Member, Tobacco Control Committee, Public Health Special Interest Group (2016-present).

American Association of Colleges of Pharmacy (AACP). Faculty Champion, Joint Council of Deans/Council of Faculties “Cata-lyst Team to Integrate the Joint Commission of Pharmacy Practitioners (JCPPP) Pharmacists Patient Care Process (PPCP)” (2016-present).

American Association of Colleges of Pharmacy (AACP). Chair, Council of Faculties - Faculty Affairs Committee (COF-FAC) Workgroup on Curricular Adoption and Integra-
DEPARTMENT OF PHARMACEUTICAL SCIENCES—ALBANY CAMPUS

PUBLICATIONS

PEER REVIEWED ARTICLES

James M. Gallo


Marcel Musteata


HaiAn Zheng

BOOK CHAPTERS

James M. Gallo

DEPARTMENT OF PHARMACEUTICAL SCIENCES—VERMONT CAMPUS

PUBLICATIONS

PEER REVIEWED ARTICLES

Stefan Balaz


Yana Cen
Wood M, Cen Y. Facile Synthesis of NaMN, NaAD

HONORS AND APPOINTMENTS

James M. Gallo
Appointed Associate Editor, PLOS: Computational Biology, September 2016.


HaiAn Zheng

Hawke RL, Pereira HA, Allen DD, O’Barr SA, Poloyac S, Trophsa A,


**Tamer Fandy**


**Senthil Natesan**


Stefan Balaz


**Karen Glass**


**CONFERENCE PRESENTATIONS**

Stefan Balaz

SCHOOL OF ARTS AND SCIENCES

PUBLICATIONS

**Sean Ali**


**Senthil Natesan**


**Senthil Natesan**


**Charles Bergeron**


**Christopher Cioffi**

DEPARTMENT OF BASIC AND CLINICAL SCIENCES

**Yana Cen**

**Karen Glass**
Project: Mechanisms of Chromatin Binding and Selection by Family IV Bromodomains
Grantor: National Institutes of Health (R15 renewal)
Amount: $384,000
Term: February 1, 2016 – January 31, 2019

**Grants**

**SCHOOL OF ARTS AND SCIENCES**


**Timothy LaRocca**

**H. John Sharifi**

**Ebot Tabe**

**Eric Yager**

**Charles Bergeron**
Bergeron C, Stone T, Kiehi TR. A pipeline for a growing data resource: Electrophysiological behavior of in-vitro cell cultures. Meeting of the National Science Foundation Workshop on Data Science, Learning, and Applications to Biomedical and Health Sciences, New York City, New York, Jan 7-8, 2016.

**Presentations**

Charles Bergeron
Bergeron C, Stone T, Kiehi TR. A pipeline for a growing data resource: Electrophysiological behavior of in-vitro cell cultures. Meeting of the National Science Foundation Workshop on Data Science, Learning, and Applications to Biomedical and Health Sciences, New York City, New York, Jan 7-8, 2016.


**James Doyle**

**Peter R. Guzzo**

Guzzo PR. Novel Therapeutics for Inflammatory Bowel Disease and Irritable Bowel Syndrome. BIO International Convention, San Francisco, CA, June 7, 2016.


**Timothy LaRocca**
LaRocca TJ. Hyperglycemia primes cells for programmed cell death shift in a glycolysis-dependent manner. 22nd Society for Radical Biology and Medicine Meeting, San Francisco, CA, November 16-19, 2016 (poster presentation).

Shakerley NL, Smiraglia TA, Patel PS, Craft M, Sosunov SA, Ten VS, LaRocca TJ. Hyperglycemia potentiates a shift from apoptosis to necroptosis. Eastern New York Student Chapter of the American Society for Microbiology, Albany, NY, November 17, 2016 (poster presentation).

Jenna LeBlanc

Meenakshi Malik
Olivo G, Shah R, Lu J, Catlett SV, Pai MP, Rose


Michael Racz


Binshan Shi

Ebot Tabe

GRANTS

Timothy LaRocca
Project: Mechanisms and outcomes of erythrocyte necroptosis
Grantor: National Institutes of Health
Amount: $480,000
Term: December 1, 2016 – November 30, 2019

Meenakshi Malik
Project: Repression of inflammasome by Francisella tularensis
Grantor: National Institutes of Health (R15 renewal)
Amount: $375,000
Term: February 16, 2016 – February 15, 2019

HONORS AND APPOINTMENTS

Peter R. Guzzo (Patents)


Jenna LeBlanc
President Elect, American Society for Cytotechnology

Nicole Shakerley
Young Investigator Award from the Society for Radical Biology and Medicine

Binshan Shi
Winning Research Paper at 2016 Education Scientific Assembly Student Awards competition (with Michaela Kinnetz)

Ebot Tabe
Young Scholar Award from Dova Press on the occasion of the 14th annual conference on Public Health and Emerging Microbial Threats.

DEPARTMENT OF POPULATION HEALTH SCIENCES

PUBLICATIONS

Allison M. Burton-Chase


Wendy Parker


**PRESENTATIONS**

Allison M. Burton-Chase


Paul Denvir

Williams I, Denvir P. Survivors’ disclosure of sexual assault to health care providers: A pilot study on disclosure barriers and consequences. Presented at the 3rd Annual ACPHS Student Research Symposium at Albany College of Pharmacy and Health Sciences, April 2016.


Thomas O’Grady


Wendy Parker


Association for Bioethics and Humanities, Washington DC, October 6-9, 2016.


DeCoster B, Parker WM. Alliance Building in Women's HealthCare. Presentation at Association for Practical and Professional Ethics, February 18-21, 2016.


Websites


Rose Hitt


Department of Humanities and Communication

Margaret Carroll

Carroll M. Lough Foyle Naval Air Station: WWII Memories. Donegal Annual, 2016, No. 68.

Carroll M. Martin Glynn’s Newspaper Editorials: Constructing Albany’s Answers to the Irish

DEPARTMENT OF HUMANITIES AND COMMUNICATION

PUBLICATIONS

PEER REVIEWED ARTICLES

Margaret Carroll

Carroll M. Lough Foyle Naval Air Station: WWII Memories. Donegal Annual, 2016, No. 68.

Carroll M. Martin Glynn’s Newspaper Editorials: Constructing Albany’s Answers to the Irish

Barry DeCoster


CONFERENCES

Wendy Parker

Allison M. Burton-Chase

Top-Rated Poster Award, Collaborative Group of the Americas on Inherited Colorectal Cancer (CGA-ICC) Annual Meeting, October 2016

Vice Chair, Early Career Special Interest Group, American Society of Preventive Oncology

Member, Medical Advisory Board, Alive and Kicking Colorectal Cancer Patient Advocacy Organization

Paul Denvir

Chair, Language and Social Interaction Division of National Communication Association

Wendy Parker

Member, Alliance for Better Health Care, Cultural Competency and Health Literacy Task Force

GRANTS

Wendy Parker

Principal Investigator: Wendy M. Parker

Co-Principal Investigator: Katie E. Cardone

Project: Health disparities and medication management strategies among adolescents and young adults with Diabetes Mellitus

Grantor: John Faunce and Alicia Tracy Roach Fund

Amount: $24,943.36

John Polimeni

Project: An Annotated Bibliography of Calculating Economic Rent

Grantor: Robert Schalkenbach Foundation

Amount: $500

Term: June 1, 2016 - August 31, 2016

ACPHS PRESIDENT’S REPORT
Michael Pittman

REVIEW ARTICLES
Kenneth Blume


J. Daniel d’Oney

BOOKS
Kenneth Blume

PRESIDENTS
Denise L. Coblish

INVITED PRESENTATIONS
Margaret Carroll


Barry DeCoster


Kevin Hickey


Michael Pittman
Travels in Gurdjieff’s Mid-lieu: Armenia and Turkey. All and Everything Humanities Conference, Salem, MA, April 20-24, 2016 (Invited Presentation).

PODCAST PRESENTATIONS
Margaret Carroll

Barry DeCoster
DeCoster B. Is ‘Demedicalization’ Possible as a Goal for Feminist Health? Feminist Epistemology, Metaphysics, Methodologies, and Science Studies Conference, South Bend, IN, October 2-4, 2016 (paper presentation).


Barry DeCoster
DeCoster B. Is ‘Demedicalization’ Possible as a Goal for Feminist Health? Feminist Epistemology, Metaphysics, Methodologies, and Science Studies Conference, South Bend, IN, October 2-4, 2016 (paper presentation).


Rose Hitt


Michael Pittman

Laura Rogers

Rogers L, Santicola T, Bogari K, Courtney K, Kaley A, Pluckrose D, Olszewski K, Yehia A. If...
You Try and Make Every Paper Look the Same; Tutors, Teachers, and Students Explore the Grand Narratives of Science Writing. Northeast Writing Center Association Conference, Keene, NH, April 2-3, 2016.

**Daniel Smith**

**HONORS AND APPOINTMENTS**

**Kevin Hickey**
President of the New York African Studies Association (current).

---

**CENTER FOR INNOVATIVE LEARNING**

**PUBLICATIONS**

**Judy Teng**

**Jenny McVay-Dyche**

**Jennifer McVay-Dyche**
Lewis KO, McVay-Dyche JM. One size does not always fit all: How to tell if your rubric works. Express workshop presented at the Online Learning Consortium’s Accelerate Conference, Orlando, FL, November 2016.

**McVay-Dyche JM**
Tedesco L. Building the infrastructure for innovative collaborative course design and development. Education session presented at the Online Learning Consortium’s Innovate Conference, New Orleans, LA, April 2016.

**Fleming G, McVay-Dyche JM**

**Judy Teng**

**McVay-Dyche JM**

**Zheng A, Feinberg D, Teng J**

**HONORS AND APPOINTMENTS**

**Tammy Garren**

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**CONFERENCE PRESENTATIONS**

**Tammy Garren**


---

**Daniel Smith**

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**Kevin Hickey**
President of the New York African Studies Association (current).
Thrombosis and
Clinical and Applied
V. Mousa SA. Modulation of
research and its associated
characterization of primary hu-
man ovarian cancer stem
cell line (CD44+ve).

Acheampong A, Mousa
SA. Targeting strategies of
cancer stem cells in the
management of solid tu-
mors. Journal of Stem Cell
Research and Transplan-
tation 2016;3(1):1023.

Alshaiban A, Muralidha-
rnan-Chari V, Nepo A,
Mousa SA. Modulation of
sickle red blood cell ad-
hesion and its associated
changes in biomarkers
by sulfated nonanticoag-
ulant heparin derivative.
Clinical and Applied
Thrombosis and
Hemostasis 2016;22(3):230-238.

Ardaei MS, Badawoud
MH, Hassan SM, Rouzi
AA, Ardaei JM, AlNosani
NM, Qari MH, Mousa
SA. Lycopene treatment
against loss of bone
mass, microarchitecture
and strength in relation to
regulatory mechanisms in
a postmenopausal
osteoporosis model. Bone
2016;83:127-140.

Brady SM, Shapiro L,
Mousa SA. Current
and future direction in
the management of
scleroderma. Archives of
Dermatological Research
2016;308(7):461-471.

Darwish NH, Sudha
T, Godugu K, Elbaz O,
Abdelghaffar HA, Hassan
EE, Mousa SA. Acute my-
etoloid leukemia stem cell
markers in prognosis and
targeted therapy: Poten-
tial impact of BMI-1, TIM-3
and CLL-1. Oncotarget

Davis PJ, Ginsky GV, Lin
HY, Mousa SA. Actions of
thyroid hormone ano-
logues on chemokines.
Journal of Immunology
Research 2016;3147671.

Delia Badia LA, Elshour-
obgy NA, Mousa SA.
Targeting PCSK9 as a
promising new mechanism
for lowering low-density
lipoprotein cholesterol.
Pharmacology & Thera-

ElFar AH, Shaheen HM,
ElDaim MA, Jouini SKA,
Mousa SA. Date palm
(Phoenix dactylifera):
Protection and remedy
for osteoporosis.
Current Trends in
Nutraceuticals 2016;1(2).

Falcone R, Davis PJ,
Stein SC, Mousa SA.
Emerging therapies for
pancreatic ductal
adenocarcinoma. Journal of
Solid Tumors 2016;6(1):
65-77.

Herceg RS, Davis PJ, Lin
HY, Mousa SA. Possible
contributions of thyroid
hormone replacement to
specific behaviors of
cancer. Biomedicine &
Pharmacotherapy 2016;84:
655-659.

Hsieh MT, Wang LM,
Changou CA, Chin YT,
Yang YS, Lai HY, Lee SY,
Yang YN, Whang-Peng
J, Liu LF, Lin HY, Mousa
SA, Davis PJ. Crosstalk
between integrin αvβ3
and ERα contributes to
thyroid hormone-
induced proliferation of
ovarian cancer cells.
Apr 11 [Epub];8(15):24237-
24249.

Lin HY, Chin YT, Nana
AW, Shih YJ, Lai HY, Tang
HY, Leinung M, Mousa
SA, Davis PJ. Actions of
l-thyroxine and nano-di-
amino-tetrac (nanotetrac)
on PD-L1 in cancer cells.

Muralidharan-Chari
V, Kim J, Abuawad A,
Naeem M, Cui H, Mousa
SA. Thymoquinone mod-
ulates blood coagulation
in vitro via its effects
on inflammatory and
coaagulation pathways.
International Journal
of Molecular Sciences
2016;17(4):474.

Muralidharan-Chari
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BOOK CHAPTERS

Shaker A. Mousa
Bowen N, Mousa SA.
“Role of antiplatelet
therapy in neurosurgery:
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profiles” in Anticoagula-
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Anti-angiogen -
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“Models for assessing anti-angiogenesis agents:
Appraisal of current tech-
tiques” in Anti-angiogen -
Mousa SA, Muralidhara
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Rajabi M, Srivinason M,
Mousa SA. “Nanobiomateri-
als in drug delivery” in
Nanobiomaterials in drug
Rajabi M, Srivinason M,
Mousa SA. “Nanobiomateri-
als in cancer therapy” in
Shaker A. Mousa
and Paul J. Davis
Mousa SA, Davis, PJ. “An-
giogenesis and anti-an-
Shaker A. Mousa
Project: Tumor targeted irradiation in mice
Grantor: NanoPharma-
cceuticals LLC
Total award: $30,720
Period of Performance:
4/1/16 - 6/30/16
Project: Scale up N-DAT for Biological evaluation
Grantor: NanoPharma-
cceuticals LLC
Total award: $78,080
Period of Performance:
4/1/16 - 6/30/16
Project: Appointed to NIH Study Section for Center for Scientific Review
Special Emphasis Panel - ZRGI F10A-S (20);
Project: Appointed to NIH Study Section for Center for Scientific Review Special Emphasis Panel - ZRGI CVRS-H (11 II); November 3-4, 2016.
Keynote Speaker. Special Session on Heparin Diversifications. Loyola University, Chicago, IL, October 28, 2016.
Keynote Speaker. 8th World Medical Nanotechno-
logy Congress. Dallas, TX, June 9-11, 2016.
Keynote Speaker. 6th World Congress & Expo on Phar-
Drugs & Deliver-
Systems. Dubai, UAE,
April 21-23, 2016.
Keynote Speaker, World Congress & Expo on Phar-
Drugs & Deliver-
Systems. Dubai, UAE,
April 21-23, 2016.
Chair of Session on VTE in Cancer/Surgery. 24th International Congress on Thrombosis. Istanbul, Turkey, May 4-7, 2016.
Keynote Speaker: Special Session on Heparin Diversifications. Loyola University, Chicago, IL, October 28, 2016.
Keynote Speaker. 8th World Medical Nanotechno-
logy Congress. Dallas, TX, June 9-11, 2016.
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SCHOLARLY ACTIVITY REPORT

ACPHS PRESIDENT'S REPORT

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ceuticals LLC
Total award: $74,240
Period of Performance: 5/1/16 - 10/31/16
Project: NDAT Process Chemistry and Novel Derivatives
Grantor: NanoPharma-ceuticals LLC
Total award: $40,960
Period of Performance: 4/1/16 - 6/30/16
Project: NADT Backups Chemistry P-DAT
Grantor: NanoPharma-ceuticals LLC
Total award: $61,440
Period of Performance: 4/1/16 - 6/30/16
Project: Radiosensitiza-
tion of Pancreatic Cancer
Grantor: NanoPharma-
ceuticals LLC
Total award: $122,880
Period of Performance: 7/28/16 - 10/31/16
Project: Optimization of Lead clinical Candidate and its anti-cancer effica-
cy versus Nano-DAT
Identification of Lead clinical Candidate(s)
Polymer; Characteri-
zation of Lead Clinical Candidate(s) in Crossing the Blood Brain Barrier;
Anti-Cancer Efficacy of Lead clinical Candidate(s) Polymer; and Anti-
Cancer Efficacy of Lead clinical Candidate(s) Polymer conjugated
Non-Nano DAT or TAT derivatives
Grantor: NanoPharma-ceuticals LLC
Total award: $122,880
Period of Performance: 7/28/16 - 6/30/17
Project: Scale up of C-TAT and P-bi-TAT for Safety Assessment in Male and Female Mice after Daily Exposure at Different Doses for 14 Days
Grantor: NanoPharma-ceuticals LLC
Total award: $89,872
Period of Performance: 09/19/16 - 3/31/17
Project: Analytical Method Development and Pharmacokinetic Studies in Rodents
Grantor: NanoPharma-
ceuticals LLC
Total award: $75,239
Period of Performance: 09/26/16 - 6/30/17
Project: Synthesis and Scale up/Test C-TAT against Neuroblastoma/ Antiangiogenic study of C-TAT and P-bi-TAT vs N-DAT and N-TAT
Grantor: NanoPharma-ceuticals LLC
Total award: $112,640
Period of Performance: 11/28/16 - 6/30/17
Project: Service Agreement for additional work on Amendment of Synthesis of 10 grams L-T3 nanoformulations (PLGA-T3 NPs) – Develop L-T3-PLGA NPs coated with Chitosan, 2- Opti-
Project: Analytical Method Development and Pharmacokinetic Studies in Rodents
Grantor: NanoPharma-ceuticals LLC
Total award: $75,239
Period of Performance: 09/26/16 - 6/30/17
Project: Synthesis and Scale up/Test C-TAT against Neuroblastoma/ Antiangiogenic study of C-TAT and P-bi-TAT vs N-DAT and N-TAT
Grantor: NanoPharma-ceuticals LLC
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FINANCIAL REPORT
JULY 1, 2015 – JUNE 30, 2016

STATEMENT OF FINANCIAL POSITION

ASSETS
- Cash and cash equivalents ___________ $27,413,499
- Investments _____________________ 45,689,914
- Other assets _________________ 1,562,094
- Accounts receivable - Students, net ______ 633,461
- Receivables - Government entities, net ______ 444,200
- Pledges receivable _______________ 1,785,086
- Student loan receivable ____________ 2,484,854
- Other receivables __________________ 400,824
- Assets held in charitable remainder annuity trust ____ 154,463
- Agency funds ____________________ 348,174
- Property, plant & equipment, net _______________ 45,621,641

TOTAL ASSETS ___________________ $126,538,210

LIABILITIES
- Accounts payable and accrued liabilities ________ $2,013,735
- Deferred income and deposits _________________7,203,328
- U.S. government grants refundable ______________2,367,539
- Bonds payable _____________________________ 23,456,428
- Expected post retirement benefit obligation ________ 2,339,552
- Other liabilities _____________________________ 1,042,397
- Deposits held in custody for others ________________348,174

TOTAL LIABILITIES __________________ $38,771,153

NET ASSETS
- Unrestricted net assets _____________________$74,439,659
- Temporarily restricted net assets _______________ 4,939,168
- Permanently restricted net assets _____________ 8,388,230

TOTAL NET ASSETS ________________________ $87,767,057

TOTAL LIABILITIES AND NET ASSETS $126,538,210

STATEMENT OF ACTIVITIES

REVENUES
- Student tuition and fees, net of financial aid ______ 78.92%
- Auxiliary enterprises ___________________ 9.33%
- Government contracts and grants _____________ 4.16%
- Gifts and pledges ________________________ 2.91%
- Investment income ________________________ 2.04%
- Other sources ____________________________ 2.26%
- Postgraduate education ____________________ 0.38%

TOTAL ______________________________________ 100%

EXPENSES
- Instruction/Student services ___________________ 44.15%
- Physical plant _____________________________ 25.97%
- General administration ______________________ 18.56%
- Research ___________________________ 5.78%
- Institutional advancement _________________ 2.63%
- Student financial aid ______________________ 2.05%
- Postgraduate education ____________________ 0.86%

TOTAL ______________________________________ 100%
BOARD OF TRUSTEES

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Marion Morton, ‘84, Chair
Matthew Bette, Vice Chair
Christopher D. Mitiguy, Treasurer
Kandyce J. Daley, ‘74, Secretary

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Stephen Ainlay
Raymond Bleser Jr., ‘81
Walter S. Borisenok
Leigh Briscoe-Dwyer, ‘87
Richard H. Daffner, ‘63
Thomas D’Ambra
James E. Dering
Paul DerOhannesian II
Chris Di Lascia, ‘83
Michael Duteau, ‘92
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Rocco Giruzzi, ‘58
Susan Learned, ‘91
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Scott Terrillion, ‘85
Pamela Williamson

PUBLISHED AUGUST 2017

EDITOR
Gil Chorbajian

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Kris Qua

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