Epidemiology and the COVID-19 Pandemic

Epidemiology is literally “the study of epidemics”. Its origins are the 19th century outbreaks of infectious diseases such as cholera. In the 20th century it was expanded to include chronic diseases. For example, epidemiologists were the first to link high levels of cholesterol in the blood to heart disease and cigarette smoking to lung cancer. Epidemiology differs from clinical medicine in that the focus is on the population, not the individual patient, and the goal is to prevent disease, not to treat it.

Sometimes epidemiologists are called “medical detectives” because they track a disease in the population and attempt to identify its causes. My expertise is the relationship between environmental exposures such as air pollution and chronic diseases such as asthma, not infectious agents like viruses. However, I am familiar with the general concepts, and as the Board of Directors “resident PhD epidemiologist”, our editor Ram Chugh asked me to write this article on the current COVID-19 pandemic.

COVID-19 stands for “Coronavirus Disease - 2019”, which is when the disease was first detected. Other coronaviruses include the ones that have caused SARS (Sudden Acute Respiratory Syndrome) and MERS (Middle East Respiratory Syndrome). In fact, due to its similarity with the SARS virus, this coronavirus is called SARS-Cov-2. It was first discovered in Wuhan, China, and naturally occurs among bats found in that area. Most scientists believe that it jumped to another animal sold in Wuhan’s “wet market” and then to humans. Another theory is that it was accidentally released in a research laboratory in Wuhan that was studying the virus.

It is a respiratory virus, very contagious, and rapidly spread from Wuhan across the world through international travel and community transmission.

“By instructing students how to learn, unlearn and relearn, a powerful new dimension can be added to education… Tomorrow's illiterate will not be the person who can't read; they will be the one who has not learned how to learn.” — Alvin Toffler

Ed. Fitzgerald, Ph.D.
Epidemiology and the COVID-19 Pandemic

People get exposed by breathing in the virus after an infected person coughs or sneezes or by touching something contaminated with the virus and then touching the face, nose, or eyes. Therefore, preventive measures include social distancing so that you are outside another’s personal breathing zone, disinfecting surfaces, and frequent hand washing with soap.

COVID-19 is a dangerous infection, with a case fatality ratio of about 5% in New York State. This means that 5% of persons who are diagnosed with COVID-19 die. In comparison, the preliminary data from the Centers for Disease Control and Prevention (CDC) indicate that the case fatality rate for the flu in the 2019-20 season was between 0.1 and 0.2%. In other words, COVID-19 cases are 25 to 50X more likely to die than are flu cases.

The great majority of COVID-19 deaths are among persons 65 years of age or older or those with underlying health conditions such as high blood pressure, diabetes, obesity, heart disease, respiratory disorders, cancer, and immune suppression. The reasons why these persons are at higher risk are not known, although it is believed immune response diminishes with age and that persons whose health is already compromised due to other diseases may be less able to effectively combat the infection.

There are two ways to test for COVID-19 infections. One is a diagnostic test that uses nasal swabs to detect viral particles. This test measures whether someone is currently infected. The other is a blood test that measure levels of antibodies. Antibodies are proteins created by the immune system to neutralize viruses. This test measures whether someone was infected in the past. Although we do not know for certain about COVID-19, a sufficiently high level of antibodies in the blood usually provides some immunity from a virus and therefore some protection from future infections.

If you choose to get tested, it is important to ensure that it is approved by the federal Food and Drug Administration (FDA) and therefore known to be accurate and reliable. The New York State Department of Health is currently conducting antibody testing on volunteers at a selected grocery stores across the state. The results indicate that about 12% tested positive, suggesting that they had been infected at some time in past few months with SARS-Cov-2 virus. This value is driven largely by downstate New York.

For example, about 20% of New York City residents were positive. In upstate New York, the numbers are far lower (6% or less). The antibody testing shows that the number of persons who tested positive is about 10X higher than the number of diagnosed cases, suggesting that the great majority of infected persons never came to medical attention, presumably because they had no or only mild symptoms. This also indicates that the infection fatality ratio is about 10X lower than of the case fatality ratio, that is, about 0.5%.

In other words, 0.5% (1 out of 200) persons infected with the SARS-Cov-2 virus die from COVID-19, compared to 5% (10 out of 200) persons who are diagnosed with the disease. The fact that so many infected persons had no or only a few symptoms of COVID-19 is not unusual. For example, it also is believed that that about 2X as many people are infected with the season flu virus each year than are diagnosed. This means that the infection fatality ratio for the flu is between 0.05% and 0.1%, values 5 to 10X lower than that for the COVID-19.

There are two ways a population may become immune to an infectious disease. One way is widescale vaccination, and the other is herd immunity. Herd immunity refers to the concept that over the course of an epidemic a sufficiently large number of persons become infected naturally and, as a result, develop immunity. Consequently, they effectively block the transmission to those who are not immune, and the epidemic “burns out”. Estimates of how many people need to become infected to convey herd immunity range from 60% to 90%, with 70 to 80% being the most common.

continues on page 15
Editorial: Experiences of Living with Lockdown

“Living with lockdown is a new experience for most of us. Adjustment has not been that easy. Some emeriti devised novel methods to cope with this kind of living. We asked our emeriti to share their experiences of living in this new environment at home coupled with the numerous guidelines and restrictions we have to follow while going out for shopping at grocery stores or even visiting a doctor for an appointment. Given below are responses from some of our emeriti.” – Ram Chugh

Lucky to be a gardener by Judith Fetterley

Since leaving the University, I have become a semi-professional gardener. I earned a Certificate in Garden Design from the Institute for Ecosystem Study in Millbrook, better known as the Cary Institute and at one time affiliated with the New York Botanical Garden. With this training completed, I opened a small perennial garden design business, Perennial Wisdom, aimed at helping the average backyard gardener to have an above-average garden. I also became an Albany County Master Gardener and currently am co-manager of the extensive Demonstration Gardens at the Cornell Cooperative Extension office in Voorheesville, well worth a visit once we can work in them again and get them ready.

Meanwhile, my own gardens have grown over the past twenty years, serving as my business card and my place to experiment with plants and designs. Gardeners are imperialists; they take up a bit of lawn here to extend an existing garden and a lot of lawn there to create an entirely new garden. I am no different. I have my shade garden, my lower-maintenance garden, my long border. What I never have is enough time to tend to the consequences of my expansionist tendencies. Each season, as I would head off to tend to the gardens of my clients or the demonstration gardens at CCE, I would think, “Wouldn’t it be wonderful if I could spend a season in my own garden. Perhaps then I could finally get it done.”

This spring the season began with the threat of a pandemic and an order to shelter in place. And so, each day since the middle of March, I have been able to tend to the large and small needs of my own garden. Never before have I been able to get things under control before they get out of control. Never before have I been able to observe on a daily basis the changes that spring brings. Never before have I had enough time simply to sit and observe an area of my garden and so to imagine what it ultimately should look like. I am designing and transplanting and replanting and actually thinking, “done.” If there is a silver lining to this pandemic, for it is for me a green one.

Since leaving the University, I have been grateful that in gardening I found a passion equal to that which I felt for teaching and writing and research. In this time of pandemic, my gratitude is even greater. I talk to my gardening friends, by zoom or phone or face-time, and we agree that we are lucky to be gardeners. We are social in a time of isolation because it is easy to keep one’s distance while still working together in the garden, we are outdoors no matter the weather, immersed in an activity we love, and face to face with growing green. Yes, we are lucky.

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* Formerly a professor of American Literature, feminist theory, and writing studies, Judith Fetterley now lives and works as a gardener. She is the owner and manager of Perennial Wisdom, a small perennial garden design consultation business, and a Master Gardener with the Albany County Cornell Cooperative Extension. Over the last several years, she has designed gardens at her home which she likes to think of as her business card. I can be reached at 518-475-1773.
Carol’s Rules for Surviving Covid-19, School of Public Health, SUNY Albany

My epidemiologist colleagues ‘kindly’ remind me that I’m in that high risk group of aging individuals and must ‘follow the rules’ (of course, if I survive the virus I will remember these ‘friends’ for what they are: meddling up-starts but we’ll deal with that when this is over . . .) And by now we all know the basic rules:

- Wash your hands constantly—keep a bar of soap in your pocket ready at all times for immediate use, water optional (don’t even try to find Purell now)
- Don’t touch your face (now they’re saying even your ears are an entry point!)
- Practice safe social and physical distancing (even though doing this for any period of time is as deadly as the virus)

I decided I was consciously trying to do all this and might be willing to do more personally during these challenging times of being housebound so I’ve added a few more for my personal guidance (but if they work for you, please join me):

- Maintain proper personal hygiene (after bathing, it’s OK to put on pajamas again as long as they are clean pajamas–there’s no shortage of laundry detergent yet).
- But dress appropriately for zoom cocktail parties (a nice blouse and pearls, for example, although pajama bottoms are still acceptable).
- Make your bed every day (Why? Because our mothers told us to and I’ve never questioned it so why question it now?).
- As for snacking and imbibing, doubling the usual daily allotment of snacks and alcohol seems not too excessive—you’re not driving anywhere and pajamas are very forgiving if you gain a few pounds now).

I welcome hearing your new rules for surviving the virus . . .

Stay well!

*Carol Whittaker, MA, MPA, MA has had many roles at the School of Public Health since joining as the “Assistant Dean for New Fun Stuff” in 1993.
More recently she established and directed the Center for Global Health and is now retired from the NYS Department of Health.*

“We never really grow up, we only learn how to act in public.” — Bryan White

“Absorb what is useful, discard what is useless and add what is specifically your own” — Bruce Lee
Provost Carol H. Kim at the Emeritus Center

Synopsis By: Teresa M. Harrison*

On March 9, 2020, Provost Carol Kim spoke with Emeriti at the Emeritus Center, providing the group with information about her background, her past research interests, and her priorities for the University at this time. Following this, she was kind enough to linger and answer questions from the audience.

Background

Foreshadowing her recent arrival on campus, Provost Kim was born in Albany, where her father was a graduate student at RPI and her mother worked in the pharmacy at Albany Medical Center. However, she grew up in Maryland, received a bachelor’s degree in philosophy and biological chemistry from Wellesley College, subsequently worked for a year at the National Cancer Institute, and then went on to pursue a doctoral degree in microbiology at Cornell University. After completing postdoctoral work at Oregon State University, Dr. Kim took at academic appointment in 1998 as an assistant professor in the Dept. of Molecular and Biomedical Sciences at the University of Maine, where she specialized in infectious diseases related to coronaviruses, such as influenza. She rose through the academic ranks at the University of Maine to full professor in 2010.

Research and Prior Administrative Work

Dr. Kim has pioneered important work in the study of infectious disease by developing the Zebrafish Model, an animal model system, which provides a tool that can be used to study a variety of topics, including innate immune response to human diseases and disorders. She described for us why the zebrafish, which belongs to the minnow family and is a common aquarium fish, turns out to be a superior animal model (compared to mice or eggs, for example) for observing developmental and physiological processes that are similar to those in humans. Zebrafish are plentiful, easy to care for, and can be used in controlled breeding programs. Further, at early developmental stages one can actually see through the organism, giving researchers direct visual access to some of the phenomena of interest. Dr. Kim has a special interest in innate immunity, a process that reacts to any breach of the body’s defenses with the production of macrophages, causing inflammation and neutrophils, which engulf and kill microorganisms. Dr. Kim played video clips of cellular processes in which we could clearly see neutrophils acting to capture and remove bacteria. This was fascinating stuff!

At the University of Maine, Dr. Kim created a zebrafish research facility that supported the work of 12 faculty members as well as 120-130 undergraduate students; she has personally mentored more than 30 graduate students. Dr. Kim has also served in several administrative positions including Vice President for Research and Dean of the Graduate School at the University of Maine. More recently, as Associate Chancellor for Academic Innovation and Partnerships in the University of Maine System, Dr. Kim’s charge was to develop master’s programs offered by all 7 University of Maine campuses, as well as a program much like UAlbany’s University in the High School.

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Provost Kim’s Priorities for UAlbany

Provost Kim spoke with us about several priorities for her work at the University at Albany. As provost, she has assumed responsibility for implementing the current strategic plan. However, beyond this, an important goal is to improve our ability to retain undergraduate students.

Based on her assumption that students will remain at an institution that offers good experiences to them, she has concentrated on developing experiential learning opportunities that enable students to engage with faculty in research activities. She is also developing a new advising model for undergraduates that brings them into contact with their future academic department “home” while they are still completing introductory and general education courses. With a foot in the department of their upcoming major, students have a chance to meet peers with similar interests and converse with department advisors, even though they will continue to be guided by a university advisor and may not take higher level courses within the major for another year or two. The point of the program is to ensure that students are connected early on with their home in the future college and department of their choice.

Provost Kim has also initiated an academic recovery program that flags students in distress and intervenes by offering help with academics, financial aid, etc. The recovery program is offered in collaboration with the School of Social Welfare, whose graduate students achieve a clinical placement by working with at-risk undergraduate students.

Another of Provost Kim’s most important priorities is to boost enrollment. Toward this end, she is expanding online educational programs, thereby increasing the flexibility of our degree programs so they become more feasible for full time working adults or those who have had to drop out of college earlier in their lives. She also wants to increase the visibility of UAlbany, recognizing that not enough is known outside the university about what we have to offer. Working with the deans, she is gathering information about the distinctive features of our colleges and schools as the basis for formulating messages about the unique character and experience of our educational programs that will draw students to the University at Albany.

Conversation with Emeriti

Following her presentation, the audience conversed with Provost Kim about a variety of topics including: artificial intelligence research and teaching on campus, Honors College students as UAlbany ambassadors, rekindling collaborations with SUNY IT’s College of Nanoscale Science and Engineering, cultivating relationships with high schools to encourage recruitment, the perennial topic of decreasing NY State support for public education, 4+1 undergrad/grad programs as ways of boosting retention and graduate enrollment, and internships that might be created through alumni contacts.

The last topic discussed was the planning that was underway should more targeted University responses to COVID19 contagion be needed. The plans revealed by Provost Kim for the creation of “social distancing” and the turn toward remote delivery of courses were ultimately announced by President Rodriguez two days after her presentation.

(*): Teri Harrison is an O’Leary Professor in the Department of Communication and a Faculty Fellow with the Center for Technology in Government.
College of Arts and Sciences Moves Forward Together

Jeanette Altarriba*, Ph.D.

In January 2019, I was honored to become Interim Dean of the College of Arts and Sciences (CAS). After my extensive experiences within the University at Albany, including an earlier role as Associate Dean in the College of Arts and Sciences and as a Chair and Professor in the Departments of Psychology and Communication, I felt very proud and humbled to return to my home base. One can say that CAS has always been the heartbeat of the University due to its breadth of Departments, twenty-one from the Arts through to the Social Sciences, Humanities, and Natural Sciences and the many Centers and Institutes that are within its domain. Within these Departments, Centers, and Institutes are extremely adaptable, creative, diverse, talented and passionate, Faculty, Staff, and Administrative Support who are the glue that holds, supports, and elevates the brilliance within the College. This COVID-19 Global Pandemic has illuminated what I have always known about the College Community, therefore, I am not surprised by the wonderful way we have responded and been called upon for expertise in some magnificent ways.

You may have seen this on the local news: Governor Cuomo announced that he is commissioning UAlbany to lead the state's research efforts, in coordination with the NYS Department of Health and Northwell Health, regarding the disproportionate impact of COVID-19 on minority populations. It is an honor and privilege that the College of Arts and Sciences will provide top notch research in this field of study to the combined efforts of the University. This is an important initiative that will impact the lives of many in New York State and across the nation.

Along with the intense focus on COVID-19 Research, many of our scientists in the RNA Institute have received numerous awards for their unique and locally targeted studies in the fight against this harsh, global disease. I am proud of the dedication and focus they have shown during the constraints on their laboratories during the NY Pause. They have managed to collaborate with various Universities, Colleges, and the SUNY System.

The entire University moved rapidly to deliver online courses to the students as well as prepare all the Professional and Administrative Staff to work remotely. The College of Arts and Sciences’ Technical Staff responded efficiently and successfully getting work and home laptops set-up with VPN (Virtual Private Network) and provided mini-tutorials to the Staff on how to access it from home. There has been prompt online training for various teaching and meeting platforms for the Professors, Staff, and Students that have all been successfully deployed and utilized since March.

The University at Albany held its first-ever Virtual Open House on April 4th with on-going Schools and Colleges hosting Departmental Faculty Sessions throughout the month of April. It was a huge success, and the CAS Faculty Representatives, and the CAS Student Ambassadors all did a fabulous job representing the College and the University. As a way to further connect with the Accepted Students, numerous CAS Faculty and Staff volunteered to call the students and their families to share with them the upcoming Virtual Sessions on Residential Life, Financial Aid, Student Affairs and the other various sessions of interest to any incoming student.

In addition, there have been innovative methods to serve the community and students in empathetic and effective ways. In the Department of Psychology, The Psychological Services Center, has moved their mental health therapy to online Teletherapy. They have been able to serve underprivileged clients, offer family therapy and give their students a chance at becoming competent at providing online therapy which could be the wave of the future.

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College of Arts and Sciences Moves Forward Together (continued)
Jeanette Altarriba*, Ph.D.

In the Department of Geography and Planning, an innovative NYS COVID-19 Tracker was created to find out the regional State data quickly and efficiently. The Departments of Africana Studies and Latin American, Caribbean and U.S. Latino Studios donated transparencies to the College of Emergency Preparedness, Homeland Security and Cybersecurity for making face shields for the frontline essential workers. Thus, entire segments of CAS are contributing in valuable ways to addressing the needs of others in the midst of the pandemic.

Some Professors were looking for methods to drive remote learning that could make an impact in the future for the student and possibly the community at large. In the Department of History, a Professor created a journaling assignment that would encourage students to reflect on their current situation during this crisis that not only allowed the Professor to gain an insightful perspective to the students’ lives but create a historical account of what is happening in our world today. The Professor will try to archive these assignments in the Library Archives for future access. In the English Department, a Professor was able to collaborate with the Writer’s Institute, to connect with famous authors and writers to give Guest Appearances on Zoom in the course. This was a way for the students to hear from professionals in their field, discuss the crisis, and write about it as a way of processing what is happening around them. Not only is it reality-based learning, inspirational for their future career paths, it was also therapeutic and a great outlet for students to understand that they are not alone in this situation.

Furthermore, the Center for Autism and Related Disabilities, under the Department of Psychology, has created online Parental Education Programs to address teaching their children at home. They have their Behavior Modification Groups that have moved online and have parents sending videos in to support learning and training on various behavior modifications for their CAS students, and in turn, the parents of these children.

These are just some highlights of how the College has played a vital role in providing critical services and education during this global pandemic. The big question on everyone’s minds is: What happens in the future? The College and the University have already transitioned to Summer Online Courses. There has been immense planning for the Fall, however, as we know, this virus is an unknown, and it makes these critical decisions much more challenging.

What I know for sure, is whatever the future brings, I am confident we will move forward together in the College of Arts and Sciences, maintaining a strong heartbeat for the University to recover and thrive for current and future Great Danes!

*Jeanette Altarriba, Ph.D., currently serves as Interim Dean of the College of Arts and Sciences at UAlbany. Prior to this appointment, she served as Vice Provost and Dean for Undergraduate Education, and through her leadership, that unit flourished and developed a variety of new programs and initiatives. She is the recipient of the University’s Collins Fellow award in recognition of her sustained efforts and service towards the University at Albany for well over 25 years.

"One may imagine things that are false, but can only understand things that are true." - Sir Isaac Newton
Have you ever heard about the Albany Showcase Day?
By Dean Knapton, Associate Registrar Emeritus
and Timothy Lance, Ph.D., Distinguished Service Professor Emeritus

As proposed by Dr. Carol Kim, Provost, this was to be a classroom-free academic day to “showcase” student research, scholarly activity and creative endeavors accomplished over the course of the academic year under the guidance of our faculty. It would have included the CURCE undergraduate conference, graduate research showcase, presentations, demonstrations, laboratory tours, poster displays, speakers, luncheons, and exhibits.

The goal was to raise our profile as a comprehensive public research university with stakeholders such as community partners, legislators, donors and prospective students. Two University emeriti (Dean Knapton and Tim Lance) were asked to join the task force planning the event, and to them this was reminiscent of our Community University Day events from the 90’s, but on a larger scale. The date of this new event was to be April 28, 2020.

Unfortunately, the worldwide Covid-19 pandemic made such an event inappropriate. Everything went virtual, including this event. Through much effort, a virtual Albany Showcase Day was planned and successfully carried out. Undergraduate and graduate research as well as posters and “three-minute theses” were featured in a series of 24 sessions spanning the time of 10 AM through 4:15 PM.

An audience was invited to participate through Blackboard. Audience could view and listen to presentations and even to pose questions to the presenters. Many of our board participated, including submitting questions to the campus’s young researchers, and were pleased with the opportunity to both witness and interact. Hopefully many of our Emeriti participated as well.

According to campus sources, the participation level across the board of presenters, faculty mentors/advisors, moderators and attendees numbered 446. There were 116 final submissions for the online conference. The data we got from Casey Kohler who ran the CURCE program was as follows:

- Original Registrations/Submissions - 167
- Final Submissions for Online Conference - 116
- Registered Participants for Blackboard Community Page - 446 (this includes presenters, faculty mentors/advisors, moderators, and attendees)

In going to the program for the online event and doing a rough count, there were more than 167 names. From the way some were listed, a couple of the names could have been part of a group submission and that could have brought the total down to 167, so that is roughly the number in the program. But given that, we’re not sure what 116 refers to. Given that UA was under lockdown and other restrictions due to Covid-19 as well and the limited availability of ITS services, we think that despite these limitations, the Showcase Day attracted a large number of presenters and attendees. We consider this to be off to a great start. Given all the obstacles, this was quite impressive.

We look forward to a more complete and diverse Albany Showcase Day next spring.
Tom Bowes - Personal Retirement Story - SUNY Cobleskill

Sixteen years of retirement: every day is an opportunity to do good works

On January 15, 1993 (my 55th birthday) I was able to retire in the NYSTRS with 36 years of credit for 33 years of service. The first nine years I worked as a carpenter’s helper for a skilled craftsman, while running a self-service (Honor system) junk shop in my side yard catering to summer visitors.

During the last 6 years, about once per month, I embark on a 3 or 4 day excursion to Central and Northern NY. While peddling a few bowls and crocks to florists, I am able to visit friends in need, including a neighborhood chum with Parkinson’s, my 79 year old graduate professor/mentor with massive head trauma, relatives and SUNY Cobleskill alumni.

Around Christmas and Easter, I am able to distribute flowers to about 20 area shut-ins. For a few years, with the help of colleagues, we would give out small wrapped Christmas gifts from a 1931 Model A to local kids in rusty cars. Lots of fun!

I developed a scholarship for deserving SUNY Cobleskill students by enlisting alumni and community support for the Friends of the Barn Scholarship. "The Barn" was an active bar and dance hall that welcomed students in the late sixties in downtown Cobleskill. A former student (now an alternative school principal) started a scholarship in my name, which is indeed quite an honor. Along the way, I voluntarily give informal scholarships to support worthy scholars I believe show promise.

I also do staff development personal growth workshops with teachers and paraprofessionals on topics such as stress reduction, controlling fears, motivation and promoting the qualities of superlative teachers.

Also on my radar screen are the opportunities to serve on Richmondville’s ZBA, Schoharie County Youth Board, the Mohawk Hudson Planned Parenthood Board, as well as frequent support to the Schoharie County ARC.

My wife, Bonnie and I have been able to travel extensively to Southern and Western states, as well as Ireland, Scotland, Italy, France and Eastern Europe. We frequently vacation (through the generosity of friends and family) in Central NY, the Adirondacks and Cape Cod. It is through the generous support and understanding of my wife that all of this is possible.

About 4 days per week I enjoy 30 minutes of respite, with a glass of red wine sitting by our waterfalls in our back yard. Presently I am constructing a 10’ by 12’ screened retreat structure just below the falls. What a view!

I highly recommend the following: 10 Steps to Take Charge of Your Emotional Life, Eve A. Wood, M.D., Hay House, Inc. Change the Way You See Everything Through Asset-Based Thinking, Kathryn D. Cramer, PhD., Running Press. The Art of Being Better. An Approach to Personal Growth, Eugene Perticone, EdD, Charles C. Thomas, Pub. Completing the prescribed exercises in each of these publications will serve you well. Your family will deeply appreciate the energy you invest.

Retirement has allowed me more time to fully explore life's 3 big queries; Who am I? What am I? Where am I going? If you are contemplating meaningfulness in your next chapter join me for a visit at the falls in Richmondville, NY or connect to plan a workshop geared for your group. Call ahead at 518 294 6691, because I am on the move, but willing to assist you in finding your groove.

Experiences of Living with Lockdown

Martha Rozett: (To the many hundreds of books on my shelves) -- March 18, 2020 The books on my shelves reproach me, knowing. I’ve been sharing this poem and was encouraged by a friend to send it along to you for the newsletter. Perhaps it will speak to the experience of other Emeriti in our age group.

How often through the years I told myself that
Someday I might need to consult them
Or perhaps my schoolboy sons would find them,
The way I found books in our family’s library when I was young.
But the sons grew up and moved away
And the books remained.

Eventually the world will get busy again
And I will recall these cooped-up plague-stricken days
When I was sifting through the shelves
And ran across my grandmother’s maiden name beautifully inscribed
In her copy of The House of Seven Gables, a book I meant to read and never did.
Last night, I found a book of nursery rhymes
And sang them to my granddaughters in Chicago.
Two puzzled little faces peered from the computer screen
Wondering why the farmer’s wife would cut off three mice’s tails with a carving knife,
In a song quite unlike the soothing sleepy time stories
My grown-up son reads to them.

2019 Three Voices Grant Program Awardees

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<tr>
<th>Applicant</th>
<th>Title</th>
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<tr>
<td>Eloise Briere</td>
<td>Lucie Cousturier, A Pioneer*: Phase II, Archival Research</td>
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<td>Phyllis Golembo</td>
<td>Ritual Dress of the Festival of San Miguel, Mexico</td>
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<td>Robert McCaffrey</td>
<td>Determining if Research Participant’s or Clinical Patient’s Data Are Valid and Reliable: The Role of Performance Validity Testing</td>
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<td>John Overbeck</td>
<td>Study of Finds from Archaeological Excavations of Ayia Irini, Greece</td>
<td>$850</td>
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<td>Martha Rozett</td>
<td>How They Taught: Three Essays on 20th Century Teachers of Shakespeare</td>
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<td>Mary Beth Winn</td>
<td>Tristan, Musician in the Late Medieval Prose of France</td>
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<tr>
<td>Carolyn Yalkut</td>
<td>Everywoman: A Full-Length Play</td>
<td>$1600</td>
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News You Can Use

New Website “Pandemic of Love” Connects People in Need of Aid With Those Who Can Help

As of June 4, the platform had raised more than $13 million and has connected 132,000 people with the help they need. If you or someone you know is in need of support, or if you can help: CLICK HERE

Virginia School District Will Use Drones to Deliver Summer Reading

Wing's yellow-and-white delivery drone blends elements of airplanes and quadcopters, or helicopter propelled by four rotors. The ten-pound drones travel at a speed of more than 70 miles per hour and can carry packages weighing up to three pounds. LINK

The First U.S. Woman To Walk in Space Just Traveled to The Ocean’s Deepest Depth

LINK

Pirate Radio Station Hosted Exclusively By Retirees Has Been Cheering Isolated Seniors Across the US

LINK

The first black valedictorian in Princeton University’s 274-year history

Nicholas Johnson, an operations research and financial engineering concentrator from Montreal, has been named valedictorian of Princeton’s Class of 2020. LINK

UA Emeriti in the NEWS

1. Lindsay Childs: Professor Emeritus of Mathematics, University at Albany. lchilds@albany.edu

I viewed my retirement in 2011 as the beginning of a long sabbatical, time to devote to mathematical research and writing, as on previous sabbaticals. So that’s what I’ve continued to do. My thanks to the Emeritus Center for promoting such continuing activity through the Three Voices Grant program.

With the recent COVID-19 lockdown (beginning in March, 2020), combined with my turning 80 in April, the combination of extra time and a heightened sense of mortality has made it a suitable time for a "sabbatical report" (hopefully “interim”), akin to “what I did on my summer vacation”. So I’ve actually enjoyed the extra time I’ve had to work on the report during the lockdown.

But where should it go? Who would be interested? This is what I came up with:

My undergraduate alumni magazine likes to note alumni books published, even self-published. So to the class notes writer I reported news about my 2019 textbook, "Cryptology and Error Correction", and a Japanese translation of it expected in 2022.

Most of the report will be chapters of a multi-authored research monograph. This involves placing my own mathematical research in the context of everything else that has happened in the research area over the last 20 years. I’ve spent much of the past year on this project. A first draft of the book was just circulated to the coauthors.

A difficult part of the report will be a Project Description for a 2020-21 Three Voices grant application. Who is the audience? How much mathematics do they know? (The cocktail party conundrum for mathematicians: “What do you do?” “Mathematics.” “I was never any good at math.” [silence])

Then, of course, there is this piece. If you see this, I guess the Emeriti News was interested.

My guess is that there will be a considerable increase in the number of memoirs/reflections written during the pandemic, appearing here and elsewhere. They should be interesting reading (if only by our descendants?).
2. **Mary Beth Winn**, Professor of French Studies (emerita), published her critical edition of *Tristan, chevalier de la Table Ronde* (1489) in December 2019. Issued in two volumes by Classiques Garnier in Paris, it examines and edits the text of the first printed edition of the Tristan romance in French prose, produced in 1489 by the Rouennais printer Jehan Le Bourgeois and the renowned Parisian publisher Anthoine Vérard. With beneficial grants from the Emeritus Center, Prof. Winn has pursued her research on the work of Vérard as well as on the Tristan legend in manuscript and print, including articles on “Tristan’s Harp in the Prose Tristan” published in *Early Music* (2017) and “Anthoine Vérard’s Books for Henry VII” in the *Journal of the Early Book Society* (2018).

3. **Pierre Joris:**
   This just in from Luxembourg Minister of Culture: I was awarded the 2020 Batty Weber life-time achievement award in literature—Details found [HERE](https://example.com) (in French)
   Adonis & Pierre Joris: *Conversations in the Pyrenees* (CMP)
   Pierre Joris, *Arabia (Not So) Deserta* (Essays; Spuyten Duyvil)
   pjoris@icloud.com
   http://pierrejoris.com
   Nomads blog: [http://pierrejoris.com/blog](http://pierrejoris.com/blog)

4. **Paul Celan:** The poet: always in *partibus infidelium*
   **Just Out:**
   *A City Full of Voice: Essays on the Work of Robert Kelly* (CMP)
   *Paul Celan: Microliths* (Posthumous prose) (CMP)

   **Forthcoming:**
   The final volume of my Paul Celan translations" *Memory Rose into Threshold Speech: The Collected Earlier Poetry* (FSG, October 2020).

5. **Berel Lang** (NFA, 1950) Professor of Philosophy Emeritus

Two (fairly) recent books of mine:

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**What I Did On My Pandemic Vacation**
**By Russ Ward, Emeritus Professor of Sociology**

Reflecting my primary teaching and research focus on social gerontology, I have been on the Board of Directors of Colonie Senior Service Centers, Inc., most of the time since 1995, the past three years as President of the Board. CSSC, a nonprofit organization, is the largest provider of community-based senior services in the Capital Region, including three independent housing sites, two adult day care sites, a fleet of vans for transportation, congregate meals, “handyperson” assistance for homeowners, and an array of social programs.

The pandemic forced closure of almost all of these services, as well as a “lockdown” of the housing (thankfully, no covid-19 cases so far). Some of the staff plus volunteers have kept some programming going, including grocery and pharmacy shopping and delivery of more than 10,000 “grab and go” hot meals since mid-March. To assist staff with weekly “reassurance” calls to check in with residents of our housing, my wife, Marjorie, and I have been making calls to residents on two floors of our biggest site. And working from a list of residents in all three buildings, we make birthday calls as they come up on the calendar, complete with a duet of “Happy Birthday.” People seem very pleased to receive such calls from “the President,” and Marjorie and I have enjoyed making new friends.

CSSC will certainly face challenges restarting and adapting programs and services when “normal” life resumes (whatever that means). We are anticipating an infusion of money from the Payroll Protection Program to bring staff back and support programs, but our revenue sources and fundraising have been severely disrupted, a problem facing many nonprofit organizations. I would also note a personal reversal of “senior services.”

Our son and family live in the pandemic “epicenter”: Jackson Heights, Queens. They declined an offer to join us in Albany for fear of infecting us. Instead, since grocery shopping is so difficult for them, we have taken advantage of “senior hours” at stores up here to fill up their lists and deliver to a halfway meeting point (with “safe distancing”) in Poughkeepsie. Just an example of the intergenerational assistance that flows from older to younger.

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**Useful Links for Retirees**

- Medicare Information
- NY State Commission on National and Community Service
- TIAA-CREF
- NYSUT Retirees and Retirement
- UUUP
- AROHE

**FOR FUN:**
- Think like a 94 year old genius
- 50 Ways to live longer
- How to live to 100 and enjoy it
I live in Massachusetts. While Town Halls are closed, Gov. Charlie Baker tweaked the Open Meeting Law so that Town regulatory boards did not have to meet the requirement of having a quorum physically present. So, starting with its April meeting, the Town of Eastham Zoning Board of Appeals, of which I am member, met “remotely.” The only people physically present were the board’s chair, plus me and the Town Planner (and the IT guy); the other members were on via Zoom. We could take determinative votes and indeed did so on a major case.

Otherwise, it is relatively calm where I live on Cape Cod. Items have been available at the grocery store, although one had to go to the Service Counter to get TP.
Epidemiology and the COVID-19 Pandemic (continued from page 2)

Herd immunity works well for mild infections but is problematic for more serious diseases because of the large number of resulting deaths. Sweden is one of the few countries that have followed this approach. Compared to most other European countries, they have relatively few restrictions and have allowed restaurants and most other businesses to remain open with minimal social distancing. As a result, about 25% of the population are believed to have been infected. The benefits include a more open and free economy. The costs are a higher number of deaths. In fact, current data indicate that the death rate in Sweden is about 3X higher than Denmark and 5X higher than Norway and Finland. These differences will only increase if Sweden continues this course until herd immunity is eventually achieved.

The costs are exacerbated in large countries like the USA, with a population of nearly 330 million compared to only 10 million for Sweden. If the current infection rate in the USA is 5% and we need to increase it to 75% to achieve herd immunity, the result will be about 230 million new infections. Assuming that the infection fatality rate is 0.5%, this translates into about 1.2 million more deaths.

In my opinion, this is far too high a price to stop the pandemic, especially since many of these deaths would be among us seniors. Consequently, most epidemiologist agree that the only realistic solution is a safe and effective vaccine widely available to those at high risk. Scientists across the world are rapidly developing and testing several potential vaccines, with the goal being at least one vaccine ready for wide-scale manufacture and distribution in early 2021.

One strategy is to keep "stay at home orders" in effect until a vaccine is available. This approach would minimize the number of additional deaths but is not feasible economically, socially, and politically.

We must reopen, but it requires a careful approach guided by science and the data to balance both the necessity of reopening and the need to protect health. The CDC has developed guidelines for states to consider when they reopen. These "gating criteria" begin with Phase 1 (a soft opening with social distancing and masks) and progress to Phase 3 (life largely returns to normal). Each phase requires a 14-day period of decreasing hospitalizations and deaths, along with a robust testing and contact tracing plan. Testing is needed to identify cases (especially those with no or only mild symptoms) and isolate them to prevent spread.

Tracing involves identifying the persons the case has recently interacted with and asking them to self-quarantine, again to stop the spread. In fact, testing and tracing have long been effective tools in containing infectious diseases. Testing also serves as an "early warning" system in that it allows officials to monitor the rate of infection in a community. If the infection rate begins to increase, then they can reimpose restrictions until the rate drops again.

New York and many other states are following this gradual and phased approach to reopening. Some states, however, are moving more quickly, even though they do not meet the CDC criteria. For example, in some hospitalizations and deaths are increasing, not decreasing, while others do not yet have the capacity for wide-scale testing and contact tracing. By reopening quickly these states will boast their economies, but they risk a major rebound in cases and deaths and may have to shut down a second time.

To conclude, the COVID-19 pandemic is the greatest public health crisis since the Spanish flu in 1918-19 and perhaps the greatest global crisis since World War II. I believe that we will return to some semblance of normality only when a safe and effective vaccine is widely available, hopefully in early 2021. Until then, we as a society need to carefully balance both public health and economic concerns, and as individuals socially distance, wear masks, and take other preventive measures to protect ourselves and others from infection.

*Edward Fitzgerald has a Ph.D. in epidemiology from the Yale University School of Public Health. He is an Emeritus Professor, former chair of the Department of Epidemiology and Biostatistics, and former Associate Dean for Research at the School of Public Health.*
Since 1985 the University at Albany has hosted the Junior Science and Humanities Symposium (JSHS) for the Upstate Region, Westchester County and everything north and west of there. The US Department of Defense sponsors this national effort to engage high school students in research working under the guidance of mentors in the high schools trained and guided by the University at Albany, their work eventually maturing into sophisticated research projects done under the guidance of faculty at Albany and other universities around the state and country and with researchers from industry including IBM, Regeneron, GE, and many others.

Each Spring the University hosts JSHS meeting for the Upstate region, with about fifty of the best chosen from the three sub-regional symposia to present their research at the University at Albany, and an equal number given the opportunity to present their work in a poster competition, joined by about 600 others including other JSHS researchers, many of them early in the program, their high school mentors, teachers, and family. Judges for this splendid competition come from faculty from Albany and universities around the region and from corporate research.

The 35th annual Junior Science and Humanities Symposium, originally to be held at the University on March 25 and 26, and then changed to a remote format on March 5 in anticipation of what was coming, was successfully completed on those two days. We decided not to use video conferencing, initially not wanting to be in the way if the University pushed all its classes out. This decision was perhaps even more compelling at the student end of that link. While we were sure that most of our students had adequate computer and network connection at home, we were equally sure that some did not (and history has born that out). We needed a way that was open to every participant.

After considering all options and consulting several of our veteran judges, we decided that the students research papers, all quite powerful, combined with an opportunity for the students to talk about their work and respond to questions from the judges, would suffice. The judges agreed. In five separate sessions Wednesday, and in the final competition Thursday morning among the winners from the day before, the judges felt that it was easy to identify and order the best among this large group of fine researchers. The top five in the 35th JSHS Upstate NY competition are as follows:

<table>
<thead>
<tr>
<th>Name</th>
<th>School</th>
<th>Rank</th>
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<tbody>
<tr>
<td>Caroline</td>
<td>Reed</td>
<td>1st</td>
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<tr>
<td>Owen</td>
<td>Skriloff</td>
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<td>Jacob</td>
<td>Egelberg</td>
<td>3rd</td>
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<tr>
<td>Alexandra</td>
<td>Hoffman</td>
<td>4th</td>
</tr>
<tr>
<td>Samuel</td>
<td>Aberman</td>
<td>5th</td>
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</table>

The top two went on to compete as speakers at the National JSHS competition. This was originally scheduled to be held in Norfolk, VA in April, but about a week after we moved ours to virtual, they did the same, and watched what we did. The remaining three of our top finalists took part in a poster session at the National competition, which again be virtual like ours was.

Leading up to this seminar we worried over and tinkered with every aspect of the operation, with helpful suggestions from veteran judges. We were all available at our telephones to trouble shoot but, thankfully, the calls never came. Every session went off without a single technical (or otherwise) glitch. The young people who competed are typically seniors in high school at the end of three years of research with mentors at the University at Albany, other universities around the State and beyond, as well as from corporate research (IBM, Regeneron, GE, and many others).
Junior Science and Humanities Symposium (continued)

This symposium was the culmination of years of effort by each of them and we and all the judges, felt that holding JSHS and assessing their work was essential. Since the symposium we have heard from several of the high school teachers who have supported their work with thanks that this opportunity was not lost. As COVID-19 continued its trajectory in the United States, and school years ended, we are happy to have completed this capstone event in their high school careers with the best moving on to nationals.

As noted above, the five winners from the first day of our regional symposium competed (virtually again) the following morning. The top two were invited to participate as speakers in the national competition, the other three in a poster session. We are delighted with the outcome:

Caroline Reed (Ossining) – 2nd place speaker
Owen Skrillof (Byram Hills) – 3rd place speaker
Sam Aberman (Byram Hills) – 1st place poster

After such a showing, there is no escaping the conclusion that Upstate NY JSHS ROCKS!!!

The country is starting the process of slowly opening up, but the State, and especially the greater metropolitan NYC area, could be the slowest as they were the hardest hit. We are trying to maintain vital components of the year round JSHS program, like the final symposia held in each school, and the summer research seminars, given continuing restrictions. Many more details, like students’ access to labs, is still work in progress. Our goal is to have a robust JSHS program in place come fall.

Albany hosting JSHS is largely the work of now Emeritus Professor Dan Wulff of the Department of Biological Sciences. About twenty years ago he asked Tim Lance, then chair of Mathematics and Statistics, to join him as cochair of JSHS. Tim had served as a judge many times and was happy to step into this new role, and has continued since when he stepped down as full time faculty and chair in 2006 to expand his efforts at NYSERNet, and after his retirement from the University in 2010 when the last of his students finished. In recent years Len Behr, who had worked with Dan from the very start as one of the high school mentors and teachers of the Research in High School program, succeeded Dan after Dan’s retirement and his own as a high school teacher, as a cochair of Upstate JSHS along with Tim.

In addition to all his contributions as Dean of the College of Science and Mathematics, biology professor, researcher, and founding Director of Upstate JSHS, Dr. Wulff and his wife Bonnie made one final gift of $5 million to the University directed to areas at UAlbany to which Wulff has devoted enormous time, energy and passion: the biological sciences department; the University’s Science Research in High School program, which he founded in 1985, and a scholarship program for undergraduate students having extreme financial need.

* Distinguished Service Professor Timothy Lance was a member of the Department of Mathematics and Statistics for more than thirty years, almost half that time as chair, also serving as the campus CIO and, briefly, as chair of Biometry and Statistics in the School of Public Health. For eighteen years Dr. Lance was also president and chair of NYSERNet which provides the very high capacity research network to leading schools in the State, and in NYC operates arguably the most important exchange point in the world for research data. A geometric topologist by training, Dr. Lance has worked with mathematicians in other areas in cross disciplinary work, as well as with biologists, chemists, and computer scientists on problems such as folding and fluid dynamics.

="Peace cannot be kept through force, it can only be achieved by understanding"- Albert Einstein
George Robinson Spotlight
By Abby Bezrutczyk*

In order to make informed decisions about invasive species management in New York State, the Invasive Species Council turns to people like Dr. George Robinson. As a professor emeritus of SUNY Albany and a member of the NY Invasive Species Advisory Committee, his research in invasive species and perspectives on citizen involvement are helping to protect our ecosystems.

Robinson transitioned from his music club business and degree in philosophy to pursue a PhD in botany at UC Davis, as he was drawn to learn more about the natural world. Today, his research has helped link invasive species to their ecosystems, as seen through his work developing methods for restoration ecology in degraded landscapes. For example, his studies on the invasive woody vine oriental bittersweet (Celastrus orbiculatus) found that maintaining a natural hydrologic regime—the natural pattern of flooding in stream systems—had potential to control the spread and growth of this invasive species.

However, Robinson’s research has not just focused on invasive plants, but also the conservation of native species—through his work with Beech bark disease. While the disease has been in New York for almost a century, Robinson says that efforts to control or manage the disease have been largely ineffective, to the point that the disease has changed our forest structure. “The result is that most American beech trees here will never reach a large size, but small trees will remain abundant,” he says, adding that more research on this disease is still needed.

Robinson puts his research in action as a member of the NYS Invasive Species Advisory Committee. The committee assists the Invasive Species Council in developing invasive species classification systems and management policies. Prior to the formation of these bodies, he was a board member and officer of the NY Invasive Plant Council.

One of his messages to the group is to “remember that nature is not static.” Because nature is in fact dynamic, the right management tactic can be hard to determine. “The removal of a species will not always bring an area back to the way it was before the species arrived,” he says, adding, “Sometimes, we are surprised by the species that take its place.”

But apart from his own research, he is actively aware of the human side of invasive species management. Invasive species problems, to Robinson, need to be met with, “a lot of feet on the ground and eyes on the water.”

The best way to make people aware of invasive species problems? Get them involved in the solutions. “People who work on trail cleanups or lake cleanups gain sensitivity to the problem of trash,” he says, “and I think the outcome will be similar for those who work on weed pulls, lake surveys, and other invasive species projects.”

He’s seeing more and more people rise to the task, whether it’s through participating in citizen science, contributing data to iMapinvasives, or learning through training activities that take place each year during Invasive Species Awareness Week. “People seem to really like this work,” Robinson says, “and find it fulfilling.” He sees the future of this work in developing invasive species curricula for school children.

Invasive species management needs both research, to learn more about the species we are dealing with, and people, to apply that research in the field. With help from people like Dr. Robinson, we’re on our way to healthier ecosystems in New York State.

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George Robinson  <grobins@albany.edu>  

I have two rather disparate items to report. First, I was profiled in my role as a statutory member of the NY Invasive Species Advisory Committee: http://www.nyisri.org/2020/04/researcher-spotlight-george-robinson/  

Second, my sister Pat and I just came out with a children’s book available through Amazon (what isn’t?), but I would prefer to direct interested folks to our local bookstores or the publisher, Troy Book Makers.
Diagnosis and Treatment Approaches to Prostate Diseases
By Martin Tenniswood,* MD

The prostate is a small “walnut sized” gland that is part of the genitourinary system and lies immediately below the bladder. In young men, its normal function is to supply fructose and citrate to the seminal fluid to provide a source of energy for the sperm and to regulate the pH of the seminal fluid.

In older men there are two major diseases of the prostate, benign prostatic hyperplasia and prostate cancer. While these two conditions affect the same gland, they are very different diseases that originate in different anatomical regions of the prostate.

Benign Prostatic Hyperplasia (BPH) is the enlargement of the central region of the gland. (Fig. 1). BPH affects between 80-90% of men over the age of 60. The urethra, the duct which conveys urine out of the body from the bladder runs through the prostate. As the number and size of the cells in the central zone increases, the urethra is constricted, obstructing the flow of urine. This makes it difficult to urinate leading to the need to pass urine more frequently and several times each night. While it is not a malignant disease, BPH can affect the quality of life so much that treatment is necessary. There are two common treatments for BPH: surgical treatment usually involves the surgical removal of the tissue in the central zone of the prostate usually under a general anesthetic, a procedure known as Transurethral Resection of the Prostate (or TURP). For men with early stages of enlargement, alpha-blockers with evocative brand names such as Flomax and Rapaflo can be used to relax the muscles at the neck of the bladder making it easier to urinate. Another class of drugs known as 5-alpha reductase inhibitors can be used to stop the slow continuous growth of the prostate and limit the worsening constriction of the urethra. These include Proscar and Avodart- both of which are also prescribed to treat male pattern baldness and have manageable side effects.

Prostate cancer is usually localized in the peripheral region of the gland (circled in red in Figure 1). It is generally a slow growing malignancy, often starting in the mid-30s and remains asymptomatic, and is not detectable for 20-30 years. As such, it is predominantly a problem in men over 50, and often is not diagnosed until men are in their mid-70s.

According to the American Cancer Society, in 2020 there will be about 192,000 new cases of prostate cancer diagnosed in the United States, and approximately 33,000 men will die of the disease this year. It is important to note however that the vast majority of men that will die of prostate cancer this year were actually diagnosed 15 to 20 years ago.

The flip side of these data is that roughly 160,000 men diagnosed this year will die with prostate cancer from other causes. In fact, somewhere between 3 and 4 million men are now long-term survivors of prostate cancer. These men have indolent prostate cancer which is “clinically insignificant”. In fact, roughly 80-85% of men diagnosed with prostate cancer have indolent disease that is unlikely to require any treatment in their lifetime and can be monitored on an annual basis - a strategy referred to as “Active Surveillance”.

The immediate goal in the diagnostic field is to correctly identify the 15-20% of men with prostate cancer who have “clinically significant”, aggressive disease that, if not treated, will progress to life-threatening metastatic disease (disease that has migrated from the prostate to other sites in the body particularly the bone, lungs, liver, and brain).
Diagnosis and Treatment Approaches to Prostate Diseases (continued)

This requires a substantial screening effort to identify men between 50-75 years with clinically significant disease so that they can be treated before the tumor has metastasized. Hence the importance of annual wellness checks. For most men, prostate cancer screening starts in their family physician’s office as part of annual physical examination. This usually consists of a digital rectal exam (DRE) and a blood test for Prostate Specific Antigen (PSA), a protein that is secreted into bloodstream by cancerous prostate cells. Patients with a suspicious DRE or elevated serum PSA level are referred to a urologist for further evaluation. PSA has been standard screen for prostate cancer for nearly 35 years. Elevated serum levels of PSA (usually greater than 3ng/mL) are suggestive of prostate cancer, but the test has a high false positive rate, and many men who do not have prostate cancer are referred to their urologists for a formal assessment on the basis of an elevated PSA. Additionally, between 10-15% of patients with PSA levels below the cutoff for referral also have cancer but go unidentified, delaying treatment these patients. In the last 5-10 years the shortcomings of the PSA test have come into sharp focus and the United States Preventive Services Task force (USPSTF) which monitors the effectiveness of diagnostic procedures has recommended against the continued use of the PSA test except in men between 55-69 years of age, and then only after a discussion of the hazards and benefits of the test.

The formal diagnosis of prostate cancer requires a histological evaluation of tissue from the primary tumor. This is usually obtained by Transrectal Ultrasound (TRUS)-guided core needle biopsy, or Magnetic Resonance Imaging (MRI)-targeted biopsy, both of which are performed in the urology clinic as an outpatient procedure. TRUS-guided biopsies are invasive, involving the systematic insertion of 10-12 small needles in a grid pattern into the prostate through the wall of the rectum and the subsequent histopathologic evaluation of the tissue captured by the cores. MRI-targeted biopsies use few needles but are nevertheless invasive. In this case the needles are aimed at the likely position of tumor based on imaging. The pathology of the tissue present in the cores identifies the presence of prostate cancer and can provide an indication of the disease severity of based on the evaluation of the Gleason Score as a measure of the tumor pathology.

Cumulative results over the last 20 years show that around half of all biopsies fail to find evidence of tumor in any of the cores. In the remaining patients, approximately 25% have low grade/low risk cancer, 10-15% have intermediate risk cancer and 10-15% have high risk cancer (Figure 2).

Figure 2: Histological Risk Assessment of Prostate Cancer Based on Core Needle Biopsies

Biopsies can also miss small tumors in which case histopathology finds no evidence of prostate cancer. The “false negative” results complicates the clinical decision-making process and are often re-biopsied when other clinical indicators such as a positive DRE and a high PSA are suggestive that there is cancer present.
Diagnosis and Treatment Approaches to Prostate Diseases (continued)

In the final analysis, the use of PSA does not efficiently identify patients with prostate cancer. Since a small but not insignificant percentage of core needle biopsies have complications -including bacterial infections and hematuria (blood in the urine), a large number of patients who do not have prostate cancer unnecessarily undergo an invasive test and subsequent complications. The cost of these unnecessary diagnostic biopsies is substantial, estimated to cost $1-3 Billion per year.

Men with low risk prostate cancer are excellent candidates for Active Surveillance, as are many men with intermediate risk disease. However, the distinction between intermediate risk and high-risk cancer is not easy to discern using the current tools used to monitor tumor progression (PSA and additional core needle biopsies). As a result, as many as 60% of patients (nearly 96,000 men) who would be good candidates for active surveillance are either not offered the option or, after discussing their choices with their health care providers, opt definitive treatment- usually prostatectomy or radiation therapy. Much of the reluctance to entering Active Surveillance seems to stem from lack of precision of the diagnostic tests and conservative management practices.

The obvious shortcomings of the current diagnostic standard of care have led to a drive to develop new, more precise tests for the diagnosis of prostate cancer and the identification of clinically significant prostate cancer. In the last few years a number of biotechnology companies have focused on the development of non-invasive tests using blood or urine to replace the core needle biopsies. These so-called liquid biopsies analyze DNA or RNA, originating from the tumors, isolated from blood or urine to identify patients with prostate cancer, and to determine whether the patients have clinically significant disease or not. The development of these new diagnostic tests and more precise risk assessment, can be integrated into shared decision-making between patients and their health care providers leading to earlier and improved identification of high-risk patients, and providing the information needed to confidently delay treatment for patients with low risk or intermediate risk prostate cancer. There is at least one test on the market that identifies high risk prostate cancer. Several other tests are awaiting regulatory approval and are expected to be available in 2021.

There are many other considerations that are important when making treatment decisions including age, family history and other health conditions. Since prostate cancer is a slow growing cancer, there is time to ask questions and discuss all the options available for treatment, including active surveillance. As better decision-making tools become available, their acceptance among the urologists, regulatory agencies will influence their implementation.

However, the most effective force for acceptance of the tests will remain patient advocacy. There are a number of prostate cancer education and support organizations including US Too, Man to Man, Prostate Cancer International and the Active Surveillance Patients International, among others. Information on these sites has been very carefully aggregate on the “New” Prostate Cancer Infolink which also provides a wealth of information and other opinions on the best treatment strategies for low- and intermediate-risk disease as well as high risk disease:

* Dr. Tenniswood joined the University at Albany in 2008 as an Empire Innovations Professor in the Department of Biomedical Sciences in the School of Public Health. He served as the Director of the Cancer Research Center from 2009-2017. His laboratory specialized in developing therapies for hard-to-treat hormone dependent cancers, particularly castration-resistant prostate cancer (CRPC) and triple negative breast cancers. The laboratory used a variety of high throughput, high content methodologies, including mRNA and miRNA-based transcriptomics to understand the biology that leads to tumor progression and drug resistance. In 2014 he co-founded miR Scientific, which has laboratories on the Health Sciences Campus. The company has developed new molecular diagnostic and prognostic tests for prostate and bladder cancer. He retired from the University at Albany in 2018 to run the company full time. He is a Vincent O’Leary Professor in the School of Public Health and continues to teach in the BMS Graduate program.
Experiences of Living with Lockdown

Gary S. Kleppel, PhD, Professor, Emeritus, Department of Biological Sciences

Producing Food in a Pandemic: Lessons from a Small Farm

I became a professor in 1987; I retired in 2017. I have been farming since 2004 (while on the UAlbany faculty). I have studied agriculture as a scholar and a practitioner. I have long been concerned about unsustainability of our current food system. The current pandemic has validated my concerns, and has made me more certain that sustainable alternatives exist.

There are two food economies in this country. The dominant one is based on large-scale, industrial production, long distance, complex supply chains, and commodity markets. Industrial agriculture produces food that is cheap in the supermarket but costly to the public and environmental health. It treats both workers (e.g., field hands, meat packers) and livestock unethically.

The other food economy, called regenerative agriculture, produces only 20 percent of America’s food. It is practiced principally on small and medium size farms (1000 acres or less), by farmers who sell a diverse array of products to a diversity of markets, and who use environmentally benign methods. My wife and I practice this kind of farming. It has been interesting to watch the industrial food system collapse under the weight of a sub-microscopic virus, while regenerative farms continue to keep their customers fed, and to thrive as agricultural businesses. For the past two months, my wife and I have been busier than usual providing customers with chicken, eggs, lamb, and bread, safely and conveniently. Some visitors come to the farm just to see our lambs, a break from the stress of lock down. In general, smallholder farmers like us are doing well because they could pivot from markets, like restaurants, which are now closed, to markets, like farm stands, where demand is up. And while prices at supermarkets have risen by 10 to 20 percent, our prices haven’t changed. Yes, our pasture-raised meat is more expensive than at Walmart, but good meat is expensive to produce. And yes, in order to switch to regeneratively-produced meat, many of us would have to eat less meat, but doctors tell us that’s a good thing. Produce from our friends’ vegetable farm is not more expensive than what is at the supermarket – just fresher. People want to know where their food is coming from, and that’s what small farms in our neighborhoods do.

It is reasonable to question whether we can feed everyone in the United States from small and medium sized farms. A study funded by the UAlbany Emeritus Center through a 3-Voices Grant, suggests that the entire US demand for meat, eggs, dairy, fruit and vegetables can be met by farms of 1000 acres or less. Covid-19 is teaching us how to increase food security in America. It remains to be seen whether consumers will remember these lessons as we recover from the pandemic.

Dr. Gary Kleppel is professor emeritus in the UAlbany Department of Biology, where his principal research was in agricultural ecology and sustainable livestock management. Kleppel and his wife Pam own and operate Longfield Farm (www.thefarmatlongfield.com) in western Albany County, where they raise sheep and poultry for food and fiber, using sustainable and ethical practices that regenerate the functioning of ecosystems while focusing on the humane treatment of animals. Cell: (518) 362 6576

"Leisure is the mother of philosophy" -- Thomas Hobbes
Human Health Effects from Exposure to Electromagnetic Fields (EMFs).
David O. Carpenter*, MD; Institute for Health and the Environment, UA

Electromagnetic waves are packets of energy without mass. Electromagnetic waves travel at the speed of light, and vary in frequency and energy. We can distinguish red from blue because blue wavelengths are shorter than red ones. At the top part of the electromagnetic spectrum we have ionizing radiation, such as cosmic and X-rays. These have sufficient energy to directly break chemical bonds and cause cancer and birth defects. Below in frequency is ultraviolet radiation, which can cause skin cancer. At lower frequency is visible light and infrared radiation coming from the sun, both essential for life on earth.

Below these in energy levels are the communication frequencies, usually known as radiofrequency (RF) radiation. These are the frequencies of radio and television, those that power microwave ovens, cell phones, GPS, WiFi and all of the other wireless devices that we all depend on. At even lower frequency are the electric and magnetic fields associated with electricity. We know that the higher frequency EMFs are hazardous to our health, and the question to be addressed is whether there are also hazards coming from exposure to lower frequency and lower energy EMFs.

I came to Albany in 1980 as the Director of the Wadsworth Center for the NYS Department of Health, and was given responsibility for administering a research program designed to determine whether there were health hazards from magnetic fields associated with power lines and electricity. We found that children living in homes with elevated magnetic fields showed an elevated risk of developing leukemia. Subsequent studies confirmed these observations (except some funded by industry, where there was clear conflict of interest). These are the lowest energy part of the EMF spectrum, and indicate that EMFs can cause damage even at energy levels that cannot directly damage DNA.

Recent research has found that long-term use of a cell phone head directly to the head results in a significant increase in risk of some types of brain cancer. Wireless laptop held on men’s lap cause a reduction in sperm counts and motility. Some people develop a syndrome of electro-hypersensitivity, characterized by fatigue, headache, brain fog, ringing in the ears and a general feeling of being unwell.

All of these effects have been reported at intensities of RF that do not cause measurable tissue heating. Exposure to EMFs in our society is increasing dramatically with the advent of 5G and driverless cars. Yet of Federal Communication Commission, which has responsible to protecting us from dangerous effects of EMF, does not acknowledge that there are adverse health effects at intensities that do not cause tissue heating.

The evidence that excessive exposure to non-thermal EMFs pose hazards to human health is strong, but national and international regulatory agencies have been reluctant to acknowledge this and to institute protective guidelines. But there are simple things that individuals can do to reduce risk. Use a landline rather than a cell phone. If you must use a cell phone, use a wired earpiece or use it on speaker. Turn the WiFi off at night. Don’t put cell towers near to schools or daycare centers.

Delay rollout of 5G until we can determine whether or not it poses significant threats to human health. While EMFs are likely not the most dangerous threat to our health, they do pose a hazard that we need to acknowledge and control.

* “David O. Carpenter is a public health physician who is Director of the Institute for Health and the Environment at the University at Albany as well as Professor of Environmental Health Sciences within the School of Public Health. His research is focused on study of environmental causes of human disease.”
Two UA Emeriti Join the UAEC Board Members

1. James Van Voorst: Jim is a Certified Public Accountant and holds an Associate’s Degree in Accounting from Hudson Valley Community College, Bachelor’s Degree in Accounting from Siena College and a Master’s Degree in Accounting from the University at Albany. James served as University Accountant at the University at Albany from 1980 to 1998. He then held positions at the University of Massachusetts Amherst, Binghamton University and an interim position at SUNY System Administration. Jim returned to the University at Albany in 2014 as Vice President of Finance and Administration, retiring in 2018. In addition to serving on the UAEC Board Jim also has been a Special Advisor to the Link Foundation since 2012.

2. R. Scott Birge (sbirge@albany.edu)

Education:
B.A.(SUNY Plattsburgh)
M.S., C.A.S., UAlbany, SUNY, Counseling & Student Development

Position:
Campus Center Director, 42 years in the management of: Building Management, Event Planning, Technical Support. Served on numerous administrative and faculty Governance Committees and Task Forces.

Margaret (Margay) Blackman, Professor Emerita of Anthropology, SUNY Brockport
Retirement Story

Parts of my story were unanticipated. I carefully planned my 2007 retirement, threw my own retirement party, signed back on as an adjunct to teach my favorite Anthropology course (Food and Culture), and looked forward to time and space to write.

Along the way I was lured into local government, appointed as the first chair of our village’s (Brockport, NY) tree board as my student intern designed [it]. Not wanting to be a “one-trick pony” [trees], I decided to run for the Village Board when an opportunity presented itself in 2011. Got elected to a term with one year left in it, ran again in 2012 and was re-elected. Then was persuaded to run for mayor in 2013. (I gave up teaching my course in 2011).

I defeated the incumbent, who was caught up in a string of issues, and have enjoyed the challenges and problem solving of being mayor in a college community to the point that I [ran] again in June 2017 when my term [was] up. [Blackman won re-election with 52 percent of the vote.]

Source: Ram Chugh, The Power of SUNY Retirees, SUNY Retirees Service Corps, 2018, 27
Volunteer Opportunities at UA

The University welcomes expressions of interest in volunteer service from emeriti faculty and staff. There are a variety of opportunities for mentoring, sharing your experience through guest presentations, and participating in campus activities. Please contact Willam Hedberg in the Provost’s Office whedberg@albany.edu to discuss your particular interests.

UAEC Board Members

President: Ed Fitzgerald, Ph.D. - O’Leary Professor of Environmental Health Sciences, School of Public Health, University at Albany: 1995 - 98 and Professor Emeritus 1998 to present.

Grayce Susan Burian, MA - Emeritus from Schenectady County Community College where she instituted and ran the Theatre Program for over 20 years.

Sorrell Chesin, Ph.D. - Appointed Associate Dean of Students at UAlbany in 1965, served in several senior administrative positions thereafter, including Executive Director of The UAlbany Foundation, and retired in 2013 as Associate Vice President for University Development (Emeritus).

Ram Chugh, Ph.D. - Distinguished Service Professor of Economics (Emeritus), SUNY Potsdam and System Administration. Retired in 2013 after 43 years of service.

Teresa Harrison, Ph.D.
O’Leary Professor Communications
College of Arts and Sciences
University at Albany, SUNY

Robert W. Jarvenpa, Ph.D.
Professor Emeritus Anthropology
College of Arts and Sciences
University at Albany, SUNY

Dean W. Knapton, M.S.
Associate Registrar Emeritus
University at Albany, SUNY

Timothy Lance, Ph.D.
Distinguished Service Professor Emeritus Mathematics and Statistics
College of Arts and Sciences
University at Albany, SUNY

Neil V. Murray, Ph.D.
Professor Emeritus Computer Science
College of Engineering and Applied Sciences
University at Albany, SUNY

Bonita Sanchez, MSW - Retired from the UA School of Social Welfare as Assistant Dean and Director of Field Education after 28 years of service as faculty/staff. In retirement, she continues volunteering with organizations that provide support to seniors, domestic violence survivors, and homeless teens.

Carol Whittaker, MA, MPA - has had many roles at the School of Public Health since joining as the “Assistant Dean for New Fun Stuff” in 1993. More recently she established and directed the Center for Global Health and now, retired from the NYS Department of Health.

In Memoriam

- Marjorie Benedict
- Nathaniel A. Friedman
- Richard Allen Hughes
- Jerome Richard Hanley
- Elizabeth T. Lauenstein
- Ben Ami Lipetz
- Robert McMorris
- Charlie Rougle
- Gary Wright

Find out MORE: http://www.albany.edu/emerituscenter/