



KNOEBEL INSTITUTE FOR HEALTHY AGING

April 2020 Newsletter

From the Director

Dear Readers,

Difficult times are upon us with the COVID-19 pandemic and everyone holed up in their homes or in hospitals. We are trying to do our part in the **#DoMyPartCO** campaign launched by the Governor's office. There is continuous contact between COCARE (7 Universities in Colorado working together on Aging matters) and the Governor's office, directed by his Special Policy Advisor on Aging, **Janice Blanchard**. A task force has been formed that meets weekly to plan the next activity that needs to happen. Our colleagues at Colorado State University (CSU) have implemented a Corona surveillance test site at CSU, helping health care workers monitoring whether they test positive for the virus or not. KIHA collaborators have donated gloves, hand sanitizer and other Personal Protective Equipment (PPEs). We have been able to provide some of these items to assisted living facilities, home services and to an ER to help nurses, who have a shortage of



these.

For more information about COVID-19, visit the KIHA website or **call the COHELP line: 877-462-2911**

or visit: <https://www.colorado.gov/pacific/cdphe/2019-novel-coronavirus>

Although it is difficult to think about anything else, try to get outside and enjoy the rapid development of spring around us. Fresh air definitely helps, and studies have shown that Vitamin D, which is provided by sunshine, can actually help fight the pneumonia that seems to follow in the tracks of the Corona viral infection.



Stay safe and stay in touch!

Lotta

Dr. Lotta Granholm-Bentley, PhD/DDS
Executive Director

Quality in Life, Wellness and Community

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First Annual Knoebel Dinner



Dr. Mohammad Mahoor
with Ryan—social robot

The First Annual KIHA Gala Dinner was hosted in the Rotunda event space December 6, 2019. We had more than one hundred guests who enjoyed the Swedish-themed dinner. A short speech about the Nobel Prize in Stockholm was given by Dr. Granholm, and an eloquent dinner talk by Dr. Bazan (see below). This was followed by the **Knoebel Prize ceremony**, where the Knoebel Institute honored persons who had played a major role for the development of the Knoebel Institute.



Claudia Pena, Lilia Koza, and Alex Sandberg, Graduate students

Knoebel Institute laureates 2019: Chancellor Emeritus Dr. Rebecca Chopp, Dr. David Patterson, Mr. David Geras, Mr. Randall Mazzarino, Dr. Lynn Taussig and Dr. Bernie Spilka. A heart felt thank you to each of these Knoebel Prize winners!



Lynn Taussig



Rebecca Chopp



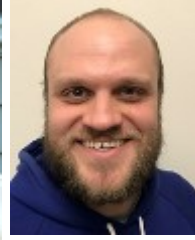
Bernie Spilka



David Patterson



David Geras



Randall Mazzarino



Dr. Nicolas Bazan Seminar

Dr. Nicolas G. Bazan gave Grand Rounds at the Knoebel Institute on December 6, 2019. He is a neuroscientist and eye researcher, author, educator, mentor, entrepreneur, music enthusiast, and art lover. His research focuses on neurodegenerative diseases, aiming to understand endogenous modulation of neuroinflammatory signaling, with a lifelong quest to help people affected by stroke, Alzheimer's disease, pain, blindness, and other diseases.

He has written two books: *The Dark Madonna: A Fable of Resilience and Imagination* and *Una Una Vida: A Fable of Music and the Mind*.

Dr. Bazan received his MD from the University of Tucuman School of Medicine, Argentina (1965) and was a postdoctoral fellow at Columbia University's College of Physicians and Surgeons and Harvard Medical School (1965-1968). He became the founding director of the LSUHSC Neuroscience Center of Excellence in New Orleans in 1989. His work has been ground-breaking, including discovery of novel lipid mediators involved in vision, stroke, and Alzheimer's disease.



Dr. Nicolas Bazan with Dr. Granholm

First Annual Knoebel Dinner *Continued*



Left: Dr. Briony Catlow, Associate Dir. KIHA, and Betsy Mathies, former KIHA Board member.

Right: JB Holston (Dean, Engineering) in conversation with the dinner speaker, Dr. Nicolas Bazan from LSU.



Above: Dr. Aurélie Ledreux with Amelia Schafer, Colorado Executive Director Alzheimer Assoc and Susan Pappas



Above: Jayla Sanchez-Warren (Director AAA CO), Ben Moultrie and his wife Mary, Bob Greska, CEO for C60 Inc with Erica Khan, JJ Jordan, Dementia Friendly Denver



Thalia Abisai, Lotta Granholm, and Daniel Paredes, KIHA with Dr. Nicolas Bazan and Dr. Haydee Bazan, LSUHSC School of Medicine



Dr. Brad Davidson, Director Human Dynamics Lab and his wife Sarah Davidson

First Annual Knoebel Dinner *Continued*



Dr. John Sladek, Emeritus Vice Chancellor and Professor of Neurology, CU Anschutz, Dr. Dan Linseman, KIHA Associate Exec. Dir, Alex Sandberg Grad Student DU, Claudia Pena, Graduate student DU, and Dr. Celia Sladek, Professor Emeritus, CU Anschutz.



KIHA Board member David Geras, CEO GoldLeaf Home Health Care and his wife Miki



Jared Bloomfield, Wish of a Lifetime Foundation, Steve Bentley, CEO Aimbridge Holdings, Dr. Eric Chess, Director Financial Security Program, and Dr. Lynn Taussig, MD, former CEO National Jewish Hospital



Dr. Daniel Paredes, KIHA, and Dr. Bernie Spilka, Professor Emeritus



OLLI Director Barbe Ratcliffe and Graduate student Allison Grossberg



Dr. Granholm with Chancellor Emeritus, Dr. Rebecca Chopp



Mark Koebrich, Channel 9 News Anchor and his wife Mary

First Annual Knoebel Dinner *Continued*



Carson De Fries, MS and coordinator for the Inter-generational Program at DU, Dr. Aurélie Ledreux, KIHA, and Ms. Ashley Taeckens, Coordinator for the Financial Security program



Provost Emeritus Dr. Gregg Kvistad with Dr. Michael Schulze, Director Audio production Baccalaureate program at DUs Lamont School of Music and Valerie Appelbaum, Director of Development -STEM



Lars Bentley (DU graduate –2019) and Lotta Granholm-Bentley, Executive Director Knoebel Institute



Jenna and Peter Merlin, in conversation with Tami Lack, KIHA Board Member.



Ron Knoebel, son of Betty and Fritz Knoebel and Steve Bentley, CEO Aimbridge Holdings

Vitamin D and COVID-19

We are all wondering how to protect ourselves against the silent killer lurking — the coronavirus that causes COVID-19. **Vitamin D** is a nutrient that plays an important role for the body's immune system, the ability to ramp up a defense against diseases. Vitamin D increases the function of selective immune cells. Low levels of vitamin D are associated with an increased susceptibility to infections and immune-related disorders. Older adults often have lower Vitamin D levels. This could at least partially explain why so many suffer from chronic inflammatory conditions and are more susceptible to COVID-19. Vitamin D deficiency is linked to lower lung function.

Vitamin D supplements can therefore reduce the risk of having infections in general and can improve lung function, if a person has a vitamin D deficiency. Vitamin D supplements have shown to reduce mortality in older adults. Keeping in mind that ***no research has shown that vitamin D can protect against COVID-19***, supplementing with 1,000-4,000 IU of vitamin D per day is typically sufficient for most people. However, those with low blood levels may require much higher doses to increase their levels to an optimal range. Ask your doctor about this. In addition, the sun's ultraviolet B (UVB) rays hit cholesterol in the skin cells, providing energy for vitamin D synthesis to occur when you are exposed to sunlight. **Therefore, go out and enjoy the spring sun!**

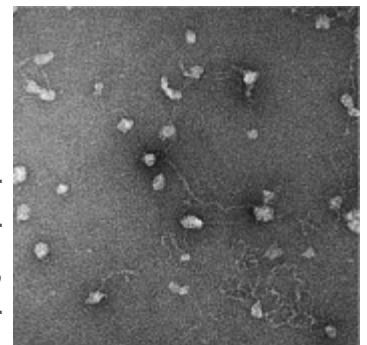


Research update Dr. Scott Horowitz

Dr. Horowitz is an Assistant Professor in the Department of Chemistry and Biochemistry (NSM) and KIHA at DU.

It has long been known that nucleic acids carry the genetic information necessary for life. Nucleic acids also play vital structural, catalytic, and regulatory roles in the cell. Very recently, we discovered that nucleic acids perform an additional unsuspected but crucial task—preventing protein aggregation as molecular chaperones. Molecular chaperones are critical for maintaining the health of the proteome (termed proteostasis), which is of prime importance to human health. Defects in proteostasis are linked to many crippling diseases, including Alzheimer's disease, Parkinson's disease, Huntington's disease, and ALS.

The work in the Horowitz lab is focused on understanding how nucleic acids act as chaperones, and discovering which nucleic acids are important for these functions in the cell, and which can be developed for treating disease.



Electron microscope image of nucleic acids binding to misfolding proteins



Dr. Paul Freeman In Memoriam



Dr. Paul Freeman

A beloved visionary and member of the KIHA family has recently passed. Paul Kenneth Freeman died peacefully on Wednesday April 1, 2020. Paul died too young, but in his 69 years, he lived enough to fill several lifetimes. Paul was a high-school national debate champion; a Harvard Law School graduate; an accomplished lawyer; a successful businessman; a published author; a Ph.D. in Economics; an Oxford professor; and a trusted board chairman, officer, and advisor.

Paul and his beloved wife Connie were proud DU alumni, and their connections to DU have run deep for 50 years. He attended DU on a full scholarship. Paul and Connie were married on campus at the Evans Chapel in 1969. Paul and Connie attended numerous DU functions and events through the years. They supported not only KIHA, but the Daniels College of Business, the Humanities Institute, and Chancellor's Innovation Fund. But it was Paul's passion for elder financial literacy and security that led to the creation of a vital new program at KIHA.

In 2016, his long-time close friend, Dr. Lynn Taussig, who was then the Special Advisor to the Provost at DU, enlisted Paul's support regarding how to add a business/finance component to KIHA's mission to create and implement solutions that enhance the lives of older adults. Paul's wisdom, connections and diligence catapulted an idea into fruition. After recruiting Dr. Eric Chess, they launched the Financial Security and Cognitive Health Initiative (FSCH). Together, Paul and Eric taught a graduate level class at DU's Sturm College of Law, with Paul serving as Adjunct Professor.

Financial Security and Cognitive Health has since grown into a multi-disciplinary research, education and policy program involving several academic departments (social work, psychology, business, law, engineering), state government offices, the financial industry, non-profit organizations and the community at large. Without Paul's vision, talent and drive, this program would not exist. Those who would like to honor Paul's vision and efforts can donate in his memory to the Financial Security and Cognitive Health Initiative:

<https://access.du.edu/s/1150/interior2013/interior-2col.aspx?sid=1150&gid=1001&pgid=4734&cid=7780&dids=460.655>

If a minimum threshold of \$50,000 is reached, the Initiative will be renamed: "*The Paul Freeman Financial Security and Cognitive Health Initiative*". We look forward to continuing to honor Paul's legacy.

New Faculty Member at KIHA



Introducing Dr. Rajeev Kumar. Dr. Rajeev Kumar is one of the world's foremost experts on movement disorders, with unparalleled experience and expertise treating and researching Parkinson's Disease, Huntington's Disease, Dystonia, and many other debilitating movement disorders. Welcome to KIHA Dr. Kumar, Associate Professor! **Get to know Dr. Kumar with this Q&A:**

Where did you get your medical degree and where did you do your residency? MD at the University of Saskatchewan. I was born and grew up in Saskatchewan, Canada. I did my neurology residency at the Mayo Clinic and then fellowship in movement disorders at the University of Toronto.

Which specific conditions are you specializing in? I specialize in movement disorders: hypokinetic disorders such as Parkinson's disease, progressive supranuclear palsy and multiple systems atrophy; and, also hyperkinetic disorders such as Huntington's disease, dystonia, various forms of tremor, and tics.

How long have you lived in Denver? Since 1998

What do you hope to accomplish together with KIHA investigators? I hope to collaborate on translational work in which we bring patient samples to the lab of collaborators at KIHA to test various hypotheses about the cause and progression of various neurodegenerative diseases comparing these samples to various results found in animal and cell culture models of the diseases. We hope to develop interventions based on what we discover about the causes of these diseases to treat or slow the progression of these diseases. We will test the interventions at KIHA in these animal models. Thereafter, we hope to test these interventions in proof of concept clinical trials in patients.

What other organizations are you working with? We helped to found and are on the board for the Movement Disorders Foundation which is a nonprofit dedicated to research, education, and unique patient programs for patients with various movement disorders. I work in collaboration with a number of academic research consortia such as the Parkinson Study Group and the Huntington Study Group to conduct clinical trials. I also collaborate extensively with pharmaceutical and biotech companies to conduct phase 2 and 3 clinical trials in a variety of movement disorders.



Dr. Kumar during a community session about Parkinson's disease hosted at DU and KIHA in the fall of 2019.

The Intergenerational Program

The intergenerational research team at KIHA has been very busy over the past couple of years and wanted to take this opportunity to update you on their progress! To give you a little background, the Intergenerational Research Team at the University of Denver's Knoebel Institute for Healthy Aging seeks to study and develop the best ways in which intergenerational programs can address issues such as social isolation and ageism across the lifespan. Led by Dr. Leslie Hasche from DU's Graduate School of Social Work (GSSW) and coordinated by Carson De Fries, the team is also made possible with the help from a number of students at DU: Andrew Steward, (Doctoral student at GSSW), Rachel Fix (Master's in social work student at GSSW), and Mikaela Bassil (Sophomore, molecular biology major).



Author
Carson DeFries, MSW

The team was created in conjunction with the founding of the LinkAGES Colorado initiative to serve as the research and evaluation partner. LinkAGES Colorado is a collaborative initiative of community-based organizations that are committed to addressing social isolation and creating an overall community of respect between generations through intentional intergenerational programs informed by research. LinkAGES members include: Kavod Senior Life, Shalom Park, Jewish Family Service, Staenberg-Loup Jewish Community Center, Wish of a Lifetime, the Denver Public Library, and Senior Planet. The LinkAGES Colorado initiative has been led by Rachel Cohen of Aging-Dynamics and supported by the LinkAGES fund.

To date, the intergenerational research team has worked with LinkAGES members and their partners in the community to evaluate 17 intergenerational programs that have been implemented in the Denver area over the past two years. Over 150 people of all ages have been involved in these programs which cover a wide spectrum of shared interests and experiences between the generations. The programs vary in terms of the age groups who engage with one another and the activities the generations do together. For example, there have been programs with preschoolers, their parents, and older adults who have participated in music therapy sessions together; photography projects between older adults and college students; and even a program between high school students and veterans which focuses on sharing life stories and experiences.

The feeling of connection and joy that takes place at these programs is palpable and the data gathered from the evaluations of the impact of these programs reinforce the evidence of these connections. Results from the evaluations of these programs demonstrate an overall increase in connections between the ages, a reduction in ageism across the generations, and high satisfaction with the intergenerational programs for those who took part in them.

The Intergenerational Program *Continued...*

In the Fall of 2019 LinkAGES Colorado was awarded the Generations United's Program of Distinction Award. This award, created and launched by Generations United in 2010, recognizes excellence in intergenerational programs across the country and celebrates the diversity of how intergenerational connections can be fostered. As explained by Generations United's Executive Director, Donna Butts, "The Program of Distinction designation is the only U.S. 'seal of approval' for intergenerational programs. Achieving this recognition is a major accomplishment and says a program employs best practices and effectively engages young and old while serving the surrounding community." The research team is honored and excited to be a part of this initiative and for the recognition that has been given to the collaborative by Generations United.



Photo credit: Roddy MacInnes

Due to the COVID-19 pandemic, our research team, in partnership with LinkAGES, has had to make adjustments in order to protect the health and well-being of everyone involved. While some of our programs are currently on pause as organizations are prioritizing the health of those they serve, we've had a few that have been able to be modified to be carried out remotely, online or over the phone, while keeping these important social connections intact. We're hopeful that these efforts will help to continue to address the issue of social isolation across the generations while keeping everyone safe and healthy. Additionally, the research team and LinkAGES are developing resources to help keep the generations connected during this difficult time.

If you're interested in learning more about our intergenerational research team, please contact KIHA's intergenerational program coordinator, [Carson De Fries](mailto:Carson.DeFries@du.edu) by email at Carson.DeFries@du.edu. Additionally, you can find out more about LinkAGES at www.facebook.com/linkagescolorado.

Yale Family Foundation Lecturer



Dr. Elliott Mufson, PhD, director of the Alzheimer's disease research laboratory at Barrow Neurological Institute was the Yale Lecturer in November of 2019.

Dr. Mufson's expertise includes Alzheimer's disease, Down syndrome, traumatic brain injury and other neurodegenerative disease. Dr. Mufson is a world-renowned researcher and has received an Award as top 100 most "Highly Cited Researchers" in Neuroscience and his work has been cited more than 30,000 times. He is a long-time collaborator of Dr. Granholm's and participates in the Down syndrome Biobank consortium.

Elliott Mufson, PhD

KIHA In The Community

Difficult times are upon us and everyone has to do their share to ensure the safety of all citizens in our community. KIHA researchers and staff have been busy collecting and donating personal protective equipment (PPEs) to regional Home Care services and Assisted Living facilities. We would also encourage everyone to consider helping the virus test sites in Colorado, whichever way you can. Go to: <https://nicolemalliotakis.com/covid-19/>

The WHO recipe for making hand sanitizer:

60% isopropyl alcohol or ethanol

40% aloe gel

A few drops of Tea tree oil.

This hand sanitizer is gentler on your hands than the store bought, hard to get, version. If you know of a Nursing home or an Assisted living facility that needs supplies, let us know at:

aging@DU.edu



Anah Gilmore and Dr. Granholm making hand sanitizer in the KIHA laboratories.



From all of us at KIHA to all of you:
Stay safe and stay in touch!!

Read the story:

<https://www.brightfocus.org/alzheimers-disease/news/denver-alzheimers-researcher-plays-key-role-colorado-covid-19-response>



How can you help?

KIHA scientists are very successful in grant funding but every Institute needs support from its community. Here are important areas for support:

- Graduate student scholarships
- Faculty recruitment



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