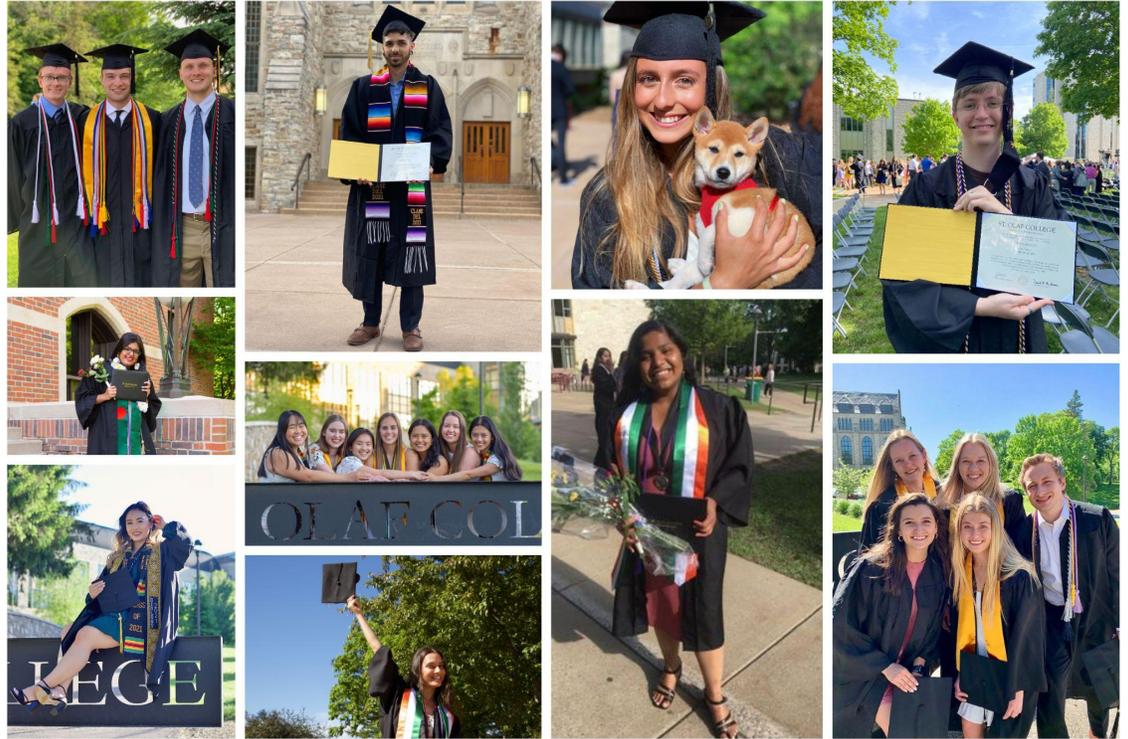


# the SECOND MESSENGER

*St. Olaf Biology Alumni Newsletter*

## Your Gift, Your Way

Thank you, Biology Alumni, for your gifts to the St. Olaf Fund! Many of you have designated your donation to specifically support the Biology Department. We are so grateful! Every year, your generous donations enable the Biology Department to provide for extra things like student travel to conferences and the annual Senior Banquet. If you haven't already, will you consider visiting [www.stolaf.edu/giving](http://www.stolaf.edu/giving) and designate your gift to the "Biology Department?" If you are celebrating a reunion this year, your gift will be counted in your class gift as well. Thank you for your consideration!



## Congratulations to the Class of 2021!!

A picture-perfect day was the backdrop for these graduates as Senior Week culminated with an in-person graduation ceremony. Parents, faculty and loved ones attended. Now these new alums move forward to graduate schools, internships, gap years and everything in between! We wish you all the best!



Thank you for photo contributions from Alaina Falck, Alex Wolner, Ben Johnson, Denver Link, Hannah Stoeckel-Milke, Namrata Khanvilkar, Juan Franco, Jr., Kaelin Sbrocco, Khatidja Jiwani, Laura Butka, Leslie Xiong, Phine Mejias, Poonam Rawat & Simon Matlotky!

# On the Intersection of Biology and Art

By Liz Noble ('09)



Liz Noble now working full-time from her studio (2021)

Growing up, I spent lots of time outside. All that playing in the backyard and camping with my siblings led to an insatiable curiosity for the natural world. So when I showed up for my first freshman semester at St. Olaf and moved into a closet of a Khildahl room, I had already declared my Biology major with full confidence. I had no idea that biology would prime me for a career as an artist.

I had an outstanding experience studying biology at St. Olaf, complete with a grant-funded summer studying freshwater zooplankton with Mike Swift at the Coe College Wilderness Field Station, the Biology in South India program, and a purely enjoyable Immunology course with Ted Johnson. I also loved the liberal arts aspect of Olaf. I took a drawing class to satisfy an art credit during my first interim. To my surprise, it was a shockingly demanding course. The challenge motivated me. I loved it so much that with some encouragement, I added Studio Art as a second major. Later, while taking invertebrate zoology and oil painting at the same time, I realized that the best material in my sketchbook was the stuff that I was illustrating in the science lab. Crayfish, freshwater mussels, and nutrient cycle diagrams were overlapping the everyday journaling notes about relationships and memories. It did not take long for the two to bleed together.

My painting professor, Wendell Arneson, stopped by my easel one day and commented that a particular painting was working because I was, "really looking." When I first learned to draw rigorously, I found that overriding my brain was necessary to create a believable image. If I wasn't careful, my brain would insert itself and I'd draw a table skewed to show more of the top (because I knew it was there) or a face with eyes that were too large or too high on the forehead (because they were my focus on the face). An artist has to measure and find relationships between the subject and the surroundings. Sound familiar? It was to me. It felt like observing an insect in the field. You approach with a hypothesis, but train to fully explore the environment and behavior. You work to gather as much data as you can with as little bias as possible. But I discovered something more profound: biology had trained me to focus and utilize my curiosity. It taught me how to isolate and structure questions. Biology taught me to treat even the most common or human-built environment as a space for exploration and investigation. And art added to that. I moved from studying one variable at a time to layering on the philosophical and complex questions of daily life. I continuously ran visual experiments in the studio.

I split my attention equally between my art and biology majors all four years of school, but I considered my biology major my priority and the practical avenue to my future career. When I graduated, I returned to a toxicology/entomology lab at the University of Nebraska, Lincoln where I'd spent previous summers working in research. I took a break to do medical illustration for a local physical therapist, but dove right back into research at the earliest opportunity, this time clinical research at Boston Children's Hospital. After a few years, I felt that the bureaucracy of U.S. medicine wasn't a perfect fit for me. Unfortunately, neither was getting a research Ph.D. because I was too curious to focus on a singular research topic. I tried out a few more careers, managing grocery stores, marketing clients, and operations for a small, (cont. P3)



Bee Sketch, oil on canvas  
Liz Noble

## Helping HealthPartners adapt and adjust to COVID-19



**Annie Ideker, MD**  
( '94 Biology & Chemistry) has accepted the role of Senior Medical Advisor for Clinician

Experience at HealthPartners. In response to the COVID-19 pandemic, Dr. Ideker and her team quickly developed and scaled a strategy for telemedicine (video) visits that allowed HealthPartners to rapidly respond to the needs of their patients during the pandemic and in less than 11 months, HealthPartners had completed over 1,000,000 video visits using this approach. She also lead the development and implementation of other digital strategies including mobile check in which allowed for "touchless" arrival for patients when clinics reopened to in-person care. In addition to her work supporting clinician experience, she also leads ambulatory patient experience work for HealthPartners, and maintains a family medicine clinical practice at the HealthPartners Arden Hills clinic.

## **Vanessa (Kleckner) Kronzer ('12)**



*Dr. Vanessa Kronzer ('12)*

Dr. Vanessa (Kleckner) Kronzer ('12) is now a rheumatology clinician investigator fellow at Mayo Clinic in Rochester. She aspires to become an NIH-funded researcher in rheumatoid arthritis (RA) genetic epidemiology, and her track record has set her up for success. During medical school at Washington University in St. Louis, she was accepted to a prestigious National Institutes of Health TL1 research program. Through the TL1 program, she obtained a master's degree in clinical investigation (MSCI) and developed a solid foundation and passion for clinical research. For her achievements and research prowess, she earned the 2013 Washington University in St. Louis summer research award, the TL1 research award, and the 2017 class Carter Award for Research.

In her first year of internal medicine residency at Mayo Clinic, she developed and led a multidisciplinary project leveraging the Mayo Clinic Biobank to identify environmental exposures and comorbidities associated with RA. She also secured a \$15,000 grant to complete these studies. In particular, her manuscript entitled "Investigating asthma, allergic disease, passive smoke exposure, and rheumatoid arthritis" has been identified as a top 10% downloaded article for *Arthritis & Rheumatology*, one of the field's top journals. Based on her experience investigating respiratory and allergic diseases and RA, she subsequently earned a Mayo Clinic-Karolinska Institutet grant to travel to collaborate with world leaders in RA epidemiology in Stockholm Sweden. Her first manuscript found that respiratory diseases of all types were associated with two-to three-fold increased risk of RA in nonsmokers—as strong a risk factor as smoking itself.

To study the interaction between respiratory diseases and genetics for RA risk, she has now earned the \$20,000 VERITY Pilot and Feasibility Research Award. She will investigate respiratory risk factors for RA with collaborators in Boston using the Massachusetts General Biobank. So far, she found that sinusitis and pharyngitis increased risk of RA, implicating the upper respiratory tract in RA pathogenesis for the first time. For her research and academic achievements, she was recently promoted to an academic rank of "Assistant Professor of Medicine" at Mayo Clinic as a fellow, an honor usually conferred to top-performing junior faculty. Meanwhile, she has been enjoying the summer weather with her family, playing lots of golf and going to the pool with her husband Alex ('12), daughter Corynn, and son Graham.



*Vanessa with husband Alex ('12) & their two children Corynn and Graham*

## **Linda Olsvig Whittaker ('75)**

It is June 2021 and here in Israel we are finally pulling out of the pandemic with over 60% full vaccination and life coming back to normal after a rough year. I do archaeology in Israel and we only got in the field once last year. We hope to resume field work this month and next. I've got a landscape archaeology transect in lower Galilee which is 30 km wide, 70 km long and 1500+ sites from the Jordan River to the Carmel Mountain coastline. Should keep me busy for the rest of my life.

Of course we had a war last month and the month before that I had a concussion when a thief knocked me down, but we seem to have recovered from both. I hope to go to Rome for the first time this autumn - seven years working on the Roman Empire in the Near East and I have never been to Rome. That is embarrassing, and must be corrected. I'm on the trail of Hadrian, the emperor who had the biggest impact on my work, and I know him so well know that he's practically a relative.



*Just popped out of an underground channel for a Roman aqueduct in the Judean Mountains - wet, filthy and having a wonderful time.*

All things considered, this is an interesting retirement encore career!

# Liz Noble (cont. from page 2)

international, biotech start-up. All the while, I painted and drew in whatever free time I could carve out. I took vacations to complete painting commissions and participate in art shows. In 2018, I asked for Fridays off in place of a significant raise. I spent the extra time painting.

I am so grateful for the quizzical lens I honed through studying biology. And the pandemic gave me the rare opportunity to pause and turn that lens upon myself. I realized, while I'm inherently a bio kid, I have also been an artist since that first, drawing class. As of October 2020, I make and sell art full-time. I love to draw and paint people, always delighting in human anatomy. And I often sketch bugs, plants, and found objects as I pay close attention to my environment.

But even when my art isn't inherently biological, my process is based on the framework of investigation that biology gave me as a little girl, turning over rocks to find bugs in my backyard. Finding my career has been a strange and beautiful ride. Cheers to wherever biology takes you, no matter how non-traditional or linear the path may be.

*"[Studying] Biology trained me to focus and utilize my curiosity. It taught me how to isolate and structure questions. Biology taught me to treat even the most common or human-built environment as a space for exploration and investigation."*

You can find my work online <https://elizabethnoble.studio/> and instagram @elizabethnoble.studio If you are visiting campus, you can also see my work in person (I have a big painting called "Bird, Bird"

hanging in Regent's Hall). Oh, and my brother, Prof. Arthur Cunningham, teaches Philosophy and Science Conversation, so drop by Holland Hall to say hello to him too.

## Post-Baccalaureates form "the Post-Bachs" achieving connection during a research fellowship, despite a pandemic!

By Neetij Krishnan, '20



The "Post-Bachs"  
(Neetij 2nd from left, back row)

After graduating from St. Olaf, I moved to Bethesda, Maryland, to begin working as a post-baccalaureate research fellow at the National Institutes of Health (NIH) in the lab of Dr. Jon Yewdell. The Yewdell lab is a viral immunology lab that primarily studies the influenza A virus but has more recently begun studying SARS-CoV-2, the virus behind the pandemic. My work revolves primarily around monoclonal antibodies, immune system proteins that specifically target pathogens and mark them for destruction. These antibodies can also be useful tools in understanding the structure of viral proteins, and my goal has been to use antibodies to characterize the structure of the "Spike" protein, which is found on the surface of the novel coronavirus.

Outside of our work in the lab, a few other post-bacs and I formed a music ensemble – the "Post-Bachs". We now have a sizable group that includes singers, instrumentalists, video editors, and audio engineers – all post-bacs at the NIH. Because the pandemic kept us apart, all of our projects have been virtual, and we've never actually rehearsed in person! So far, we have 7 public videos on [our YouTube channel](#), with songs from "Go the Distance" to "Fly Me to the Moon", and many more in development. Our most ambitious project, Leonard Cohen's "Hallelujah," has been a collaboration with Dr. Francis Collins, the director of the NIH and former leader of the Human Genome Project – who also happens to sing and play the guitar. Who knows – the video might even be up on our channel by the time you read this!

I am currently applying to medical scientist training programs, with the goal of starting in the Fall of 2022. Before then, I plan to depart the NIH in August of this year to move to Madrid, Spain, where I will begin a 9-month Fulbright research fellowship. I will be working in the lab of Dra. María Blasco to study telomere biology in relation to COVID-19 sensitivity in mice.



# St. Olaf Biology Alumni Updates

**Carrie Nelson Berg ('88)** I have retired as a Physical Therapist and now am putting Dr. Gene Bakko's lessons from Sustainable Agriculture class to work. I have a large garden at my home in Mason City, Iowa and am employing no till, crop rotation, and compost to my organic "farm." And I am pleased to say that I have a son (1 of 4 kids) who is also using these same eco-friendly practices in his garden. Thanks Dr. Bakko!

**Jeff Barrows ('75)** After leaving his Obstetrics and Gynecology practice, Jeff has been serving as Senior VP of Bioethics and Public Policy for the Christian Medical & Dental Associations for the past year. He is married to Kathy ('76) with 3 children and 1 grandchild.

**Jenny Mohn ('14)** graduated with her PhD in neuroscience from University of California, Davis this spring. Her dissertation work investigated the effects of selective attention on sensory encoding and choice-related activity across auditory cortex. Part of that work was recently published in the Journal of Neurophysiology (and can be found here [doi:10.1152/jn.00406.2020](https://doi.org/10.1152/jn.00406.2020)). She has since begun a postdoctoral position at the University of Oregon with Santiago Jaramillo.



**Robert McMahon ('77)** I have been retired from the Ohio State University Agricultural Technical Institute for almost six years (July 1, 2015) where I served as the Coordinator of the Greenhouse Production and Management Technology for 29 years.

Since then, I have become a member of the Gardeners of Greater Cleveland, first as a member, then serving on the Board, and now I am an officer of the club, becoming First Vice President this year. I also serve as Chair of the Program Committee, lining up speakers for our monthly meetings. I also work part-time at the Lakewood Garden Center, assisting customers, watering as needed and restocking shelves. I walk to work as it is only 3/4 of a mile and I so enjoy "communing" with fellow plant geeks and working outside. Life is good! Now let's hope that we reach herd immunity soon and we can finally move beyond this COVID pandemic that upended so many lives around the world.

**Elizabeth Erickson ('98)** was promoted to the rank of Colonel in the U.S. Air Force (photo with family attached) in May, and will move from Stuttgart, Germany to the Washington DC area in July to become the Director of the Air Force's Global Health Engagement Program.



**Rachel Gates Katkar ('06)** started a new job working at the University of Minnesota School of Dentistry Program for Advanced Standing Students (UMN PASS). Rachel coordinates admission for international dental students seeking to obtain their dental license in the United States. Since Rachel started, applications increased 52%. Rachel's favorite part of the new job is meeting applicants from all over the world. Rachel can't wait to travel to underrepresented countries to recruit new students next year.



Picture: the UMN PASS class of 2023 representing 9 different countries

# The Class of 2020 Graduation Celebration

**Delayed by a pandemic...**

*A crystal clear, beautiful Minnesota weekend greeted the class of 2020 as they came to campus to sign the Old Main tower, send their luminaries into the summer sky, and walk across the stage to commemorate their graduation. No longer students, these alumni celebrated their first reunion and graduation week at the same time! Congratulations to the Biology Class of 2020!*

**...Graduation week at last!**



## **Kathie Johnston ('83) publishes 2nd children's book**

JUBILEE recounts the true story of Danish dressage competitor Lis Hartel, who was determined not to let polio keep her from riding again. She found that an inexperienced horse named Jubilee was just the partner she needed to develop a new way of riding—all the way to the 1952 Olympics!

I ran across Jubilee and Lis's stirring story when researching my first book, RAILWAY JACK: The True Story of an Amazing Baboon (Capstone, 2020), which Amazon Editors have labeled "Best Nonfiction for Kids" and is a nominee for the 2022 William C. Towner Award. Jubilee hit all the notes for me: an animal who'd had a remarkable impact on an everyday person's life, in a way that left ripples in society today. No widely-known celebrities; no heroic animal feats; just a life that any of us could be living.

Olympic dressage was not open to women in Lis's day, but she didn't let that deter her from aiming for the stars. I won't say too much about the story, but here's an awesome fact: the back of a horse will get you three feet closer to the stars.

Inspired by the horse who'd lifted her up, Lis pioneered the world's first therapeutic riding center. Also inspired by Jubilee and Lis, riding as therapy was quickly endorsed by the medical field, and within a decade, centers sprang up around the globe. And there I saw the crowning element of their story, and knew I had to tell it: Jubilee's ripples in society.

You can see a photo of an actual horseshoe Jubilee wore in the pair's most famous performance at [www.ktjohnston.com/Jubilee](http://www.ktjohnston.com/Jubilee).

Preordering will be available soon via your favorite bookseller and online sellers.

*"I won't say too much about the story, but here's an awesome fact: the back of a horse will get you three feet closer to the stars."*

