

A NEWSLETTER OF THE ROCKEFELLER UNIVERSITY COMMUNITY



On July 9, 2021, Dr. Sidney Strickland made the announcement that he will step down as the Dean of Graduate and Postgraduate Studies in the next few months. Since many members of our community were surprised to learn of this changing of the guard, I decided to meet with Dr. Strickland virtually to ask a few questions and reminisce about his incredible twenty-one-year tenure:

I think a lot of people were surprised when you announced that you were stepping down. Can you please talk about what made you decide to end your tenure as the Dean after so many years?

I just think it's good for the program to have some turnover, and probably more often than every twenty-one years. New people come in, they have new ideas, new approaches—it's stimulating! And I think I've really loved doing the job, I've enjoyed it tremendously, but there is also the fact that I would like to spend a little more time concentrating on the lab. So those

factors combined just made me think it was time. There was no push, I was still enjoying it, but when you do something for a long time, there is certain inertia that sets in, and you want to avoid that.

It's been a very long tenure for you, and looking back on it, are there any periods of time or specific events that really stand out to you?

Not really. But I think we have made a lot of progress in creating an institutional safety net for the students. I've been involved with the graduate program going back to 1973, and it's always been a fantastic place to be for graduate students. Almost invariably the PIs are good mentors, they care about their students, they are doing superb science, and it works well. But what didn't exist in the early days or fifty years ago, was a kind of institutional security. Students can have problems for all reasons—it's not just scientific. It's health, it's family matters, it's whatever interferes with people's lives, all these issues. So, I

think we instituted a way for the students to feel like they have somebody at the institutional level, not their PI level, to help them through hard times. And I think it was very important because in the very old days that didn't exist, so people could get a little bit lost and not know what to do.

I agree. As a student myself, I can really appreciate that support that we get from the Dean's Office. And speaking of other notable experiences, was there something that you really enjoyed about being the Dean? What was your favorite part of the job?

Definitely my favorite part is interacting with the students. I know them all, as you know, and I have become friends with some of them. Some of those friendships have endured for a long, long time. Some of the students that came in on my watch have become very accomplished. There is Vanessa Ruta. I was the Dean when

CONTINUED TO P. 2 🗷

she was a student. She and I became very friendly even when she was a student, and I recognized her incredible talents. There was also Paul Cohen, Kivanç Birsoy, and Agata Smogorzewska. So, it's basically been interacting with the students. I have learned from them scientifically and also just about other things. If they are international, I learned about their home countries (I find that tremendously interesting), their life, their hobbies, all that sort of stuff, so it's definitely been interacting with the students. I really love that. And I actually don't want to give that up—I want to try to do some teaching and still have some interaction with the student population.

I am sure that students will appreciate your continued involvement. On the other hand, was there anything that was really challenging for you?

There is nothing that stands out. There are issues that come up that are difficult, every year there are really difficult issues. But the great thing about Rockefeller is that it's so small, you can deal with everything on an individualized basis. People would warn me at the very beginning when I started. Let's suppose that the student really wanted to do something out of the ordinary, and they would ask me if they could do it, and people would say, "Well, if you do it for that person, you will have to do it for everyone." But it turns out, if you have 200 students, that's really not true. If a student wants to go to an extra meeting because it's right in line with their thesis work and would be incredibly valuable, we can give them a leeway to go to that meeting with the Dean's Office support. But not everybody is going to be lined up to do it or want to do it. So, I think it's made it a lot easier to deal with the challenging things, the fact that we can be so individualized. You know, you can't do that if you have 20,000 graduate students. But you have 200, you can do that. So, I would say, the challenging moments were challenging, but I think we can usually work through them fairly successfully.

And I don't know if you have given this any thought, but do you know who you would prefer to see as your successor? Not necessarily a specific person, but what kind of qualities should that per-

son possess to be able to do the job just as well?

I think it's pretty obvious—you want somebody who is interested in the welfare of the students, who is supportive. And this really betrays my own prejudices: I do love the flexibility of the program; students can do what they want. For me, it would be too bad to get someone in who is extremely bureaucratic, rule-bound, and wanted to set up a very different structure. I am not saying that wouldn't be good, but it's not what's giving the program a special flavor. I would hope that person would celebrate our flexibility and the independence that we give students and try to keep that going.

I truly hope so too! Is there anything that you think your successor should try and change?

It's pretty difficult—since I have been doing it for twenty-one years, if there was something that we should change, I should have changed it. I'm sure there are things—I'm not sure what exactly they will be. But someone with a new approach will look at it and say, "We can do it a lot better." And I anticipate that, I welcome that. One of the reasons you want to get turnover is that someone will come in with a fresh view.

Do you have any scoop on how the search is going?

It's just in its early stages, so I don't really have any scoop. I don't really know what they're thinking. I have interviewed with a search firm, to give them my take on the situation. It's a great job because the administration has always been extremely supportive of the graduate program. Jim Lapple, who is our Chief Financial Officer, has always been willing to give us extra funds to do something special, if we make a case for it. If we tell him that something could be really important for the students, that we want to do it, that it's going to be expensive, Jim has never hesitated. All the rest of the administration, all the way up and down the line, has been supportive. So, it's a great job because you have a tremendously talented group of students, you have a lot of resources to do special things, a beautiful campus, and a good working relationship with the faculty and with the administration. So, I think they will be able to attract somebody really good.



Megan Elizabeth Kelley

Editor-in-Chief and Managing Editor, Communication

Anna Amelianchik

Associate Editor

Evan Davis

Copy Editor, Photographer-in-Residence

Melissa Jarmel

Copy Editor, Website Traffic

Audrey Goldfarb

Copy Editor, Webmaster, Website Design

Jennifer Einstein, Emma Garst

Copy Editors

Jim Keller

Editor-at-Large

Nan Pang

Designer

selections.rockefeller.edu nseditors@rockefeller.edu

You mentioned earlier that you wanted to focus more on your lab. Is there anything else that you are looking forward to now that you have this newly found freedom?

I'm sure everybody knows that my great hobby is music. So, I don't expect to become a lead guitarist for a rock band, but I wouldn't mind spending a little more time on my guitar skills. Other than that, just working with the lab because that is something that I still tremendously enjoy. After all these years, I still love trying to figure out what goes right and what goes wrong in the body or in biology, I might say.

Is there anything else that you would like to leave our readers with?

No, just tell them that I'm looking forward to the student retreat.

Are you coming?

Oh definitely! I'll be there.

Edited for clarity.

Spread Like Wildfire

AILEEN MARSHALL

Have you ever heard the phrase "spread like wildfire"? It refers to something that quickly affects or becomes known by an increasing number of people. There has been a growing number of wildfires around the world in the last few years. It made me wonder what is causing all these fires. It seems that more people are being affected by them, but how many of us know how they happen?

The definition of a wildfire is an unintended or out of control fire in an area of vegetation. Other names are forest fires, brush fires, or wildland fires. They occur in climates that have enough moisture to allow an ample number of trees and plants to grow, but also have a sufficiently hot and arid season for the vegetation to dry and become flammable. Wildfires tend to occur during those dry periods, usually the summer and fall, and during droughts. They are said to have fronts, where the flames meet unburned material. Fronts can move as fast as 6.7 mph among trees and 14 mph in grassy areas. Sometimes air currents carry embers, also known as firebrands, past the front and start a fire in a new area, known as jumping.

Wildfires are categorized by the different fuels they consume. The most common type is the *surface fire*, which moves along the ground fueled by dry leaves, fallen twigs, branches, dead trees, and dead low-lying bushes. Surface fires move slowly but can be accelerated by wind. *Ground fires* burn below the surface, fueled by roots and buried organic material such as peat. Usually caused by lightning, these fires tend to smolder and can last for months. *Canopy fires* move along the treetops and are spread by wind or vines among the trees.

Sometimes wildfires occur naturally and can be beneficial. There is evidence in the fossil record of forest fires going back millions of years since plants started to cover the land. These fires are mostly caused by lightning, and sometimes by volcanic eruptions. These fires lead to the formation of *complex early seral forest habitats*, or an early-stage forest before the establishment of a tree canopy. These types of habitats often have more species diversity than older forests. Some plants and trees need fire to germinate, and some



1989 Smokey the Bear poster. This work is maintained in the National Agricultural Library, in Beltsville, MD.

animal species are dependent on those plants. The fire also helps to return nutrients to the soil. The United States' National Parks Service will carefully monitor, but usually allow, a naturally occurring fire burn out on its own as long as there is a good barrier between the fire and occupied areas.

However, within the last few decades it's been shown that most wildfires are caused by human activity. A <u>study</u> in *Proceedings of the National Academy of Sciences* concluded that 84% of wildfires between 1992 and 2012 were caused by

people. Discarded cigarettes or matches, unattended campfires, intentional burns such as brush or crop fires, sparks from equipment such as lawn mowers or tractors, railroads, and power lines, and even arson are the causes of most wildfires today. Warming temperatures have caused more drought conditions, which has also increased the number of wildfires. The increase in dry vegetation has also led to a rise in lightning ignited wildfires. While wildfires used to occur mostly in the late

CONTINUED TO P. 4 🕰

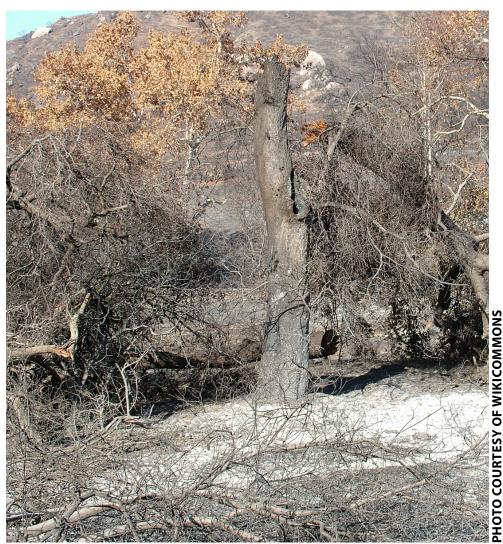
PHOTO COURTESY OF WIKICOMMONS

summer and fall, fires caused by people can occur at any time. The fire season now averages two and a half months longer than it did in the 1970s, according to the U.S. Forest Service.

Wildfires destroy a significant amount of property and environment and have effects on the climate and human health. These fires emit carbon monoxide and dioxide, nitrogen oxides, formaldehyde, benzene, poly-aromatic hydrocarbons, and volatile organic compounds that can increase the ozone concentration. These chemicals have been shown to reach as high as the lower stratosphere, about 30,000 feet. Wildfires contribute as much as 25% of the global carbon emissions. The loss of plants then reduces the amount of carbon absorbed from the atmosphere. Chemicals released by wildfires can also be carried in the air across miles and affect people in other areas. Smoke from wildfires contains particulate matter under 0.2 μm. These particles and carbon monoxide can cause respiratory and cardiovascular problems in people exposed to them, particularly firefighters. In addition, the lack of plants and roots after a fire allows for more water runoff, and that water can pick up these chemicals and contaminate local water supplies. The open land after a fire can also allow invasive species to take over. It is evident from media reports that wildfires also lead to massive loss of residential and commercial properties, as well as human and animal lives.

Up through the early twentieth century, wildfires were detected using lookout towers. Sentries would then report the fires using telephones and even carrier pigeons. Today lookout towers are only one detection tool. There are public hotlines, ground and aerial patrols, satellite images, and drones. Since aerial photography can be of limited use due to cloud cover and low image resolution, some forests have cameras and detectors attached to trees. The detectors measure temperature, humidity, and smoke.

Wildfires are fought with water and fire retardants. These are dropped by planes and helicopters. Fire retardants are water-based solutions of ammonium phosphates and ammonium sulfates. The nitrogen and phosphate content can act as a fertilizer, helping to bring plants back to fire-ravaged areas. However, there is some question as to how the retardants affect



Burned trees and ash on Bureau of Land Management lands at Dulzura Creek, Harris Fire. 17 November 2007, US Geological Survey.

drinking water supplies. Firefighters will sometimes create a *break* or *fire line*, to stop the fire's spread. They will chop down trees, dig ditches, or create a line of a controlled burn to build a line with no fuel for the fire.

Current prevention strategies involve forest management, construction codes, and public education. Forests can be managed by thinning of dead and overcrowded trees, including some commercial logging. Building codes require use of fire-retardant material in buildings, selection of fire-resistant plants for landscaping, and a buffer zone between occupied areas and wild lands. The most effective means of reducing forest fires is educating people about using caution when in the great outdoors. This consists of such things as reminding people to properly dispose of cigarettes, put out a campfire, keep their yards free of debris, and listen to evacuation orders. The most famous symbol of forest fire education is Smokey the Bear, who first appeared in 1944 as part of Franklin D. Roosevelt's fire prevention campaign. The character is now considered a cultural icon.

As of this writing, there are currently 108 fires in fifteen states. Most of these fires are in the western half of the country, including Alaska. The Dixie fire in northern California is one of eleven in that state. It has destroyed the historical gold rush town of Greenville and has spread almost 700 square miles. New York State has sent forest rangers to help fight the western wildfires. Around the world there are currently wildfires in Canada, Greece, Turkey, Italy, Spain, Bulgaria, Russia, Israel, Mongolia, and Brazil.

Global warming has increased the number of wildfires, and the fires themselves add to climate change. Hopefully increasing awareness of the causes and effects will spur people, and governments, to do more to reduce the economic and environmental losses.

Culture Corner

Four Music Festivals, Four Very Different Documentaries

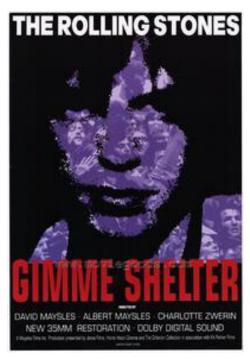
BERNIE LANGS

There are four superlative film documentaries, two released in 1970 and two this year, chronicling music festivals that reflect era-defining moments in the cultural and social history of this country. Opinions stretch far and wide as to what lessons can be learned from each of these movies and whether each film is indicative of a deeply rooted, underlying psyche of what it means to be American. The documentaries inspire their viewers to delve deep into ideas about the music itself, specifically the theory of whether or not the art is selfishly shaped and advertised in a destructive package created for the consumerist corporate exploitation of young people, which subsequently "trickles down" to the broader population through many mediums.

The original Woodstock Festival was held over three days in mid-August 1969 on a farm located in Bethel, New York. Film director Michael Wadleigh released a movie about the "celebration," Woodstock, in March 1970, featuring three hours of footage of the extravaganza attended by over 400,000 people, spotlighting selected extraordinary performances by major rock, folk, and soul acts of the decade. There are interviews with attendees, festival workers, views of drug-taking and river-bathing young people, as well appearances by local shop owners and residents of the small town deluged by crowds of counterculture, young "hippies."

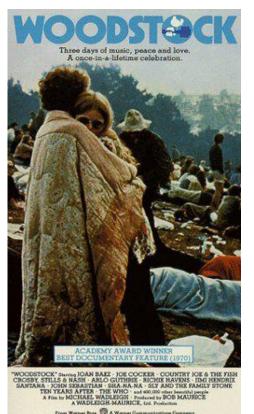
The greatest moments of the 1969 Woodstock festival are the ethereal performances of Santana, The Who, Jimi Hendrix, Crosby Stills and Nash, Ten Years After, Richie Havens, Arlo Guthrie, and the soulful, peace-loving, rocking extravaganza of Sly and the Family Stone. The peak of the three days may be the performance of Sly and the Family Stone, a huge, racially integrated band with horns, pianos, guitars, and percussionists, as they undergo the call and crowd response of "Want to Take You Higher!".

Directors Albert and David Maysles, masters of documentary storytelling, followed the 1969 American tour of The Rolling Stones with cameras and crew in hand and presented their footage as *Gimme Shelter* released in December 1970. View-



ers are treated to entire songs played by the Stones at Madison Square Garden with additional scenes of them mixing songs such as "Wild Horses" at the famed Muscle Shoals studio in Alabama. The viewer is also privy to the planning of a Woodstock-like festival near San Francisco by lawyers and music managers as they search out a venue where hundreds of thousands will gather for the event. What we really are bearing witness to in these shots are the calm drawing up of blueprints for impending disaster.

The top-bill act at Altamont Speedway on December 9, 1969, was The Rolling Stones. The festival, once marketed as California's opportunity to display to the country its moment of peace and love, devolved over the day of music into mayhem. The security force to "police" the crowd was the notoriously violent biker group, the Hell's Angels, who almost immediately set out to beat up out-of-control drug-taking audience members. The violence culminated in the stabbing death by an Angel of a young man waving a (possibly unloaded) gun during the song "Under My Thumb" as the Stones played through the night to an out-of-control crush of festivalgoers. Amazingly, in the darkness and through hundreds of people in the crowd near the stage, the Maysles accidently captured the very moment of the killing. The footage in Gimme Shelter would later



be used to acquit the biker of murder in court, since the outline of the waved gun is on view for about two seconds against a white background in the night in a moment of disturbing blurred fury.

For decades, Altamont was considered the moment that the peace and love movement of the 1960s came to a dead stop, exposing how tenuous and unrealistic the idealism of an entire generation had been all along. Pundits, from music and cultural critics to editorializing observers of history, held The Rolling Stones responsible for the tragedy of what occurred and their sound as representative of the worst instincts of a society's darker personality, which could not help but lead to violence and the metaphoric death of the extended 1967 "Summer of Love." I say emphatically to all such accusations, "rubbish."

In 2021, two new music festival documentaries, mirroring in some ways the juxtaposition that occurred in 1969 between Woodstock and Altamont, were released, also a contrast between good vibrations as opposed to unhinged violence. The musician Questlove recently released his film, *Summer of Soul*, on the Hulu streaming service and in theaters. The film documents six afternoon concerts held in Manhattan's uptown area of Harlem, also in 1969, that never received press or at-

CONTINUED TO P. 6

tention over the years despite appearances by numerous performers who were at the top of the music charts and their fame at the time, including some who had also appeared at the Woodstock festival.

Sly and the Family Stone, as at Woodstock, delivered the greatest performances in *Summer of Soul*. Early in the documentary, we're treated to their hit, "Everyday People," and towards the film's end, we listen to the very song they played at Woodstock, with the same crying out of "Wanna take you higher – HIGHER." It is a congregational bliss of soul and boundless love, captured in both Bethel and in Harlem. Other great moments in Questlove's film include music by Stevie Wonder, The 5th Dimension, Gladys Knight & the Pips, The Staple Singers, and the legendary Nina Simone and Max Roach.

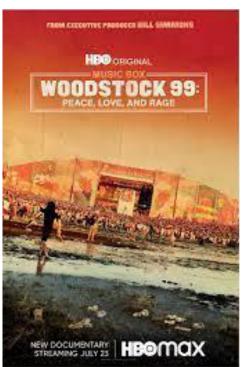
In addition to the extraordinary and delightful music of the film, through interviews and the many shots of the crowd, the festival comes across as more honestly "feel good" and peaceful without the pretensions of other concerts at the time. As the film pans across the crowd over the six days, there isn't one individual obviously drunk or high or behaving in the embarrassing uncontrolled manner on prominent view at the more famous 1969 gatherings. At the Harlem Festival we see old and young African Americans, many together as families, enjoying a day in the park, grooving to the vibe of the sublime music while connecting emotionally and spiritually with the performers. Also in the crowd is a mix of Harlem's Spanish population and white men and women calmly laughing, dancing, and smiling in joy as they take in the music. The fact that no television network or film studio chose to air the footage of the festival for decades, depriving us all of viewing the concerts, becomes an essential focus of the movie. As a glaring example of overt racism, many of the performers and attendees interviewed by Questlove for Summer of Soul examine how the Harlem festival speaks to the harsh climate for people of color in the U.S. at the time and ponder why so many related problems unbelievably and terribly persist to this day.

Woodstock '99 was released in July 2021 on the HBO Max network and is the story of how the music and performers at the Woodstock 1999 festival incited horrific violence, with attendees egged on



by the aggressive, screamed speeches and singing by several bands amid a pounding, deafening "call to battle" of guitars and drums. If Altamont was a nightmare from which America woke up to realize that their youthful utopia had all along been a grotesque dream and a sham, Woodstock '99 unveils the cemented foundation on which a tower of blind, violently conceived ignorance remains unshakably solid in our culture. It's rare that a societal documentary can sicken its audience more than any fictional horror flick. The festival was billed as a reprise of the original Woodstock's peace and love purpose, but the mostly young, white men weren't having any of that from the moment they hit the boiling hot venue on those July days in 1999 in Rome, New York. Several attendees died of heatstroke, women ended up being savagely groped by crowds of young men, and a few women were raped by crazed twenty-somethings feeding on music of unashamed and unabashedly pure hatred.

On the last evening of the festival, concertgoers took the candles distributed for a nighttime vigil against gun violence to set alight anything flammable they could find for massive bonfires, as they tore down metal towers holding equipment for the show. At one of the worst moments of out-of-control rioting in the documentary, the band The Red Hot Chili Peppers was quietly asked by the promoters to calm the crowd, but instead vocalist Anthony Kiedis chose to literally "fan the



flames" by leading an improvised, manic version of Jimi Hendrix's song "Fire."

Much of what is commonly believed about the original Woodstock is a mythologized retelling of what actually happened, a point brought up again and again by commentators in HBO's Woodstock '99 documentary as they deconstruct what went so wrong at the later remake. However, it is undeniable that the performers and singers in 1969 did grab hold of peaceful feelings abounding in the air. Viewing the late 1960s crowds at Woodstock and the attendees at Altamont, perhaps it's simply a matter of East Coast versus West Coast lifestyle and attitude. Some of the hippies at Bethel were high or drunk, but there was no expression of repressed frustration boiling over. At Altamont, the Californians on display are often so inebriated or zonked out that they stumble like zombies around the grounds, inciting anger and annoyance by those they smash into. The Hell's Angels absurdly and horrifically took this behavior as an opportunity to beat concertgoers as they pleased. When The Rolling Stones hit the stage that night, an entire day of fighting culminated in violence taking place directly upfront near the band and in view of the Maysles' many cameras. Altamont didn't end the 1960s. it was where the bummer, bad trip of an indulgent drug culture met the fists of lunatics whose lives centered around motorcycles and beer.

CONTINUED FROM P. 6 🕰

The underlying causes of the vile behavior we witness in the documentary, Woodstock '99, remain alive to this day, a legacy of unnecessary hatred exploding in actual destruction. One could postulate that the young men at the concerts, constantly described in the documentary as "morons," "idiots," and "numbskulls," grew up to storm the U.S. Capitol building on January 6, 2021. Most of what we listen to by the bands in the movie is a disgrace to the very name of "music" as several performers yell and scream abusive and obscene "disgust of life" tirades. It resembles a call to arms to a brotherhood centered on vague, simplistic principals that expressing uncontrolled rage is legitimate and necessary. Young people at times plummet towards hopelessness when taught to believe that they are viewed in American society as a dumb-luck group with no chance from birth for happiness or meaningful employment. Woodstock '99 shoulders the historic shame of Altamont with none of its remorse, regrets, or lessons learned. Bands such as Korn, Limp Bizkit and their low-grade, imbecilic vocalist, Fred Durst, and the right-wing, shamelessly untalented Kid Rock, encouraged their fans to embrace destruction of the "system" that has designated them "useless."

Music promoters, many bands, and numerous corporate concert sponsors have hung on to the selling point that spending one's life with adolescent desires and attitudes is the best approach to combat aging. In actuality, that is nothing but a lazy, ignorant, and childish philosophy. Woodstock '99 couldn't pretend to be revolutionary with its simple-minded credo of "I'll do whatever I want, whenever and wherever I want, and no one can stop me." Societal encouragement, from music to the airbrushed, "ideal" youthful beauty displayed in magazines and commercials to film and TV shows, are all promoting a youth culture attitude allowing us to only select in our lives from the rankest, lowest-hanging spoiled sustenance. One must see it for what it really is when exposed to the bright light of truth: banal, absurd posturing in defense of never becoming an adult who must handle a multitude of difficult choices, responsibilities, and perhaps most frightening of all, transitioning to emotional growth that allows deeper understanding and enrichment of life and love. Viewing Woodstock '99, one discovers how such senseless, superficial beliefs continue to pervade the minds of so many people, with no end in sight for the future. Until we embrace and enjoy the notion that growing up and growing older carries us to our best selves and the most fulfilled life, the mindset of uncontrolled lifelong adolescent frustrations will remain a clear and present danger to discovering a plane of "higher" physical, philosophical, and mental health in America. Sly and the Family Stone express it beautifully at the original Woodstock and the Harlem Summer Festival: Wanna take you higher - HIGHER!

Natural Expressions

<u>Art</u>

Leena Sen, research assistant in the Funabiki Laboratory at The Rockefeller University, would like to share her digital and canvas artwork with the community. Sen's work is predominantly portraits, but she has forayed into abstract work at times. Her artwork can be viewed on her Instagram page @hungriboiart.

Music

Collette Ryder, Director of the Office of Sponsored Programs Administration at The Rockefeller University and choir member with the New York Choral Society, would like to announce the upcoming 2021-2022 season of performances with NY Choral. The 2021-2022 season will be in a hybrid (virtual and in-person format) with performances in October through May. The October event will be held virtually on Oc-

tober 13 and will feature an *a cappella* choral performance of "Earth Song," composed by Frank Ticheli. For more information, please see the full season announcement on the <u>NY Choral website</u> or email Ryder (cryder@rockefeller.edu) with any questions.

Nick Didkovsky, Bioinformatics Group Supervisor in the Heintz Laboratory at The Rockefeller University, announces the record release of CHORD IV, the fourth album by CHORD. Didkovsky acted as producer and played electric guitar alongside Tom Marsan for CHORD IV, together creating a heavy, deep-listening experience described by Peter Thelen of Exposé as "...a brutal cascade of sonic artifacts that immerse the listener in a beautiful sea of noisy guitar textures dripping down the walls... slow moving ambient slabs of freemetal." CHORD IV can be listened to online on CHORD's bandcamp page and is available for purchase for \$5.

Bernie Langs of The Rockefeller University Development Office would like to share the premier of his song "Ave Marianna, Ave Ava." This song was composed by Langs in honor of the opera singer, Ava Chenok, who performs alongside Langs in this piece. Langs also contributed instrumental performances and additional vocals to this rock opera style piece. "Ave Marianna, Ave Ava" can be heard online on Langs' SoundCloud page.

Email Megan E. Kelley at mkelley@ rockefeller.edu to submit your art/music/performance/sporting/other event for next month's "Natural Expressions" and follow @NatSelections on Twitter for more events.

