# Newsom or Black woman logical Senate pick

WILLIE'S WORLD
*By Willie Brown*

Gov. Gavin Newsom should pick either himself or an African American woman to replace Sen. Kamala Harris when she becomes vice president.

Newsom is 53 years old and has a bright political future ahead of him that could go on well beyond the six years he will have if he re-elected governor of California in 2022.

The next logical step for Newsom would be the Senate, so he might as well think about making the move now.

Plus, with the COVID pandemic resurgence and all of its associated economic and educational troubles, the next couple of years will probably be a nightmare for any governor.

On the other hand, exiting Sacramento for Washington in the midst of a crisis would probably be seen as an opportunistic cop out, Plus, Newsom isn't the type to shy away from a challenge.

That leaves him with having to pick someone else as Harris' successor.

The initial rush among insiders was for him to name a Latino, as they are the fastest-rising voting bloc in the State.

But let's drill down a bit.

Most of the Latino contenders — Secretary of State Alex Padilla, Attorney General Xavier Becerra, former Los Angeles Mayor Antonio Villa-

*Brown continues on C2*

Bay Area

## Insight

**Politics:** How Harris bridges state's north-south rivalry **C21**

San Francisco Chronicle and SFChronicle.com | **Sunday, November 29, 2020** | **Section C** ★★★★★

Photos by Gabrielle Lurie / The Chronicle

**Debra Blanchard, who lost her husband to COVID-19, prepares for Thanksgiving at her Oakland home.**

# Heavy holiday hearts for grieving families

## Celebrations offer difficult reminders of parents, spouses lost to coronavirus

**By Jill Tucker and Vanessa Arredando**

**Isabel Morales and Alejandro Serrano embrace outside their Pittsburg home. Morales' father died of COVID-19 in Mexico this year.**

Debra Blanchard wanted to spend Thanksgiving in bed, to ignore the upcoming holidays completely.

The Oakland nurse would actually rather the world stop turning altogether, for time to quit pushing through birthdays, anniversaries, Thanksgiving and Christmas, as if nothing has changed.

Her husband, Terry, her high school sweetheart, died of COVID-19 on Easter. Their 34th wedding anniversary fell on Father's Day. His birthday was on Aug. 23.

"I know the world doesn't stop turning, although for me I wish it would," Blanchard said. "We're not really looking forward to the holidays, if that makes sense."

For the more than 260,000 other families in the country who have lost someone to the pandemic, it does.

Unbridled grief has settled over the nation as hospitals fill and more than 2,000 are added to the country's daily death toll. By Christmas, the dead will probably number more than 300,000.

For many if not most, there were no funerals, no gatherings of family and friends to honor a life and few hugs for solace. The sadness, sharpened by the onset of the holidays, has overwhelmed those struggling to save their dead from the agonizing anonymity of the death count.

"Each person's grief is as unique as their fingerprint," David Kessler, a grief and loss expert, said in his "Unlocking Us" podcast. "But what everyone has in common is that no matter how they grieve, they share a need for their grief to be witnessed."

In a pandemic, that is difficult, if not impossible.

Dianne Akrie grieves alone.

Her 87-year-old husband, Costell, died on April 4, hours after the Hayward rehabilitation facility where he was recuperating from a fall called to say he was running a low fever. By 3 p.m. that day, he was dead.

They had been married 65

*Grieving continues on C5*

CHRONICLE SEASON OF SHARING FUND

# A helping hand after treatment for cancer

**By Mozes Zarate**

Christina Quinn is a dancer. She's a jazz singer. A fitness teacher. An empath. And after seeing the results of a follow-up mammogram in June, she calls herself a survivor.

"I'm grateful to find out that I'm breast cancer-free," said Quinn, who also goes by Zeena.

Now, she wants to go back to school to finish up her communications degree. In the spring of next year, she'll re-release her album, "Going My Way," a collection of jazz covers that originally dropped just before the coronavirus pandemic shut down live music.

And she wants to keep teaching fitness and dance. Her favorite class, which she described as a "round-trip ticket around the world," incorporates Afro-Brazilian samba, tango, Bollywood, disco and hula — and that's just a few of the styles, all in one hour.

It's been a long road to recovery for the Marin County artist, and with the help of others, including the donors at The Chronicle Season of Sharing Fund, she hasn't felt entirely alone through it all.

"I'm supposed to be around a long time, I guess," Quinn said. "This must be God's way of making sure."

It all started a year and a half ago, with a request from a doctor at Marin General Hospital in Greenbrae.

"Could you stay a few minutes longer?"

*Sharing continues on C14*

# Batteries, hydrogen road rivals

**By Dustin Gardiner**

SACRAMENTO — As California pushes to end the sale of gas-powered cars by 2035, a rivalry over which types of green vehicles will replace the internal combustion engine is playing out.

The dominant player is clearly battery-powered electric cars like Teslas and Chevy Bolts. That's for obvious reasons: California already has about 450,000 plug-in electric cars on the road and more than 67,300 charging ports.

But some legislators and energy experts say the state must not forget to invest in another technology in its infancy, hydrogen fuel-cell cars, which could help serve drivers who cannot easily charge at home.

Hydrogen-powered cars are also electric cars with no emissions. The key difference is the source of power: Hydrogen cars generate their own electricity internally by combining hydrogen, the most plentiful resource in the universe, with oxygen.

Yet hydrogen cars are a tiny fraction of the market today, with fewer than 10,000 cars on the road and 44 fuel stations in California.

Hydrogen advocates said the momentum behind battery-electric cars doesn't tell the full story. Hydrogen cars can refuel within minutes, like a gas-powered car, and have an average range of more than 300 miles — two key advantages.

Battery-electric cars take much longer to

*Hydrogen continues on C6*

# Bay Area key in hunt for virus treatments

**By Peter Fimrite**

Scientists at Bay Area universities, laboratories, biotechnology companies and drug manufacturers are fashioning drug concoctions out of blood plasma, chimpanzee viruses and cells taken from bone marrow in the race to rid the world of COVID-19.

The microbial treasure hunt is not just to find a cure — which may not be possible — but to control the debilitating health problems caused by the coronavirus.

Major progress has been made this year. The antiviral drug remdesivir, produced in Foster City, has improved recovery times, and the steroid dexamethasone has cut the number of deaths in severely ill patients.

What follows is a list of

*Treatment continues on C15*

Ulrich Perrey / AFP / Getty Images

**Remdesivir, made by Gilead Sciences of Foster City, was approved in October for use against COVID-19.**

PHIL MATIER *and* HEATHER KNIGHT
*Their columns will return.*

BAY AREA

# Bay Area central to U.S. hunt for treatments

*Treatment from page C1*

some of the most promising medications and vaccines with ties to the Bay Area:

**Antibodies and Immunity**

**Mesenchymal stem cells / UCSF and UC Davis Medical Center**:

UCSF Dr. Michael Matthay is leading a study of whether a kind of stem cell found in bone marrow can help critically ill patients with severe respiratory failure, known as ARDS. Matthay hopes the stem cells can help reduce the inflammation associated with some of ARDS' most dire respiratory symptoms, and help patients' lungs recover.

In all, 120 patients are being enrolled at UCSF Medical Center, Zuckerberg San Francisco General Hospital, the UC Davis Medical Center in Sacramento and hospitals in Oregon and Texas. He said the trial, which includes a small number of ARDS patients who don't have COVID-19, should have results by summer or fall 2021. So far, 28 patients are enrolled in San Francisco.

**Lambda-interferon / Stanford University:**

Lambda-interferon is a manufactured version of a naturally occurring protein that had been used to treat hepatitis, and researchers hoped it would help patients in the early stages of COVID-19.

Stanford researchers completed their trial of lambda-interferon and found that it did not boost the immune system response to coronavirus infections.

"That trial did not find any difference in outcomes between the treatment and placebo," said Yvonne Maldonado, chief of pediatric infectious diseases at Lucile Packard Children's Hospital at Stanford, where 120 patients were enrolled in the trial. "It didn't work."

**Antiviral drugs**

**Remdesivir / Gilead Sciences (Foster City):**

Remdesivir, once conceived as a potential treatment for Ebola, was approved by the Food and Drug Administration in October for use on hospitalized COVID-19 patients.

Trademarked under the name Veklury, the drug interferes with the process through which the virus replicates itself. It was one of the drugs given to President Trump and has been used regularly in hospitals under what is known as an emergency use authorization.

It was approved after three clinical trials showed hospitalized coronavirus patients who received remdesivir recovered five days faster on average than those who received a placebo. Patients who required oxygen recovered seven days faster, according to the studies.

Gilead now plans to conduct clinical trials to see how remdesivir works on pediatric patients, from newborns to teenagers, with moderate to severe COVID-19 symptoms. Remdesivir is also being studied with steroids and other drugs to see if it works better as part of a medicinal cocktail. An inhalable form of the drug is also being developed.

**Favipiravir / Fujifilm Toyama Chemical (Stanford University):**

This antiviral drug, developed in 2014 by a subsidiary of the Japanese film company to treat influenza, is undergoing numerous clinical studies worldwide, including a trial involving 180 patients at Stanford University.

Stanford epidemiologists are testing favipiravir to see if it prevents the coronavirus from replicating in human cells, halts the shedding of the virus and reduces the severity of infection. Unlike remdesivir, it can be administered orally, so it can be used to treat patients early in the disease, before hospitalization is necessary.

The Stanford study has so far enrolled about 90 patients, who are given the drug within 72 hours of when they were first diagnosed with COVID-19. Half of them get a placebo. People can enroll by emailing treat covid@stanford.edu.

**Monoclonal antibodies**

**REGN-COV2 / Regeneron Pharmaceuticals / Stanford School of Medicine:**

The REGN-COV2 cocktail is the same one Trump received, and Stanford is one of dozens of locations nationwide where clinical trials are being held. Two separate trials are under way at Stanford — one for hospitalized patients, the other for outpatients. A third trial is about to begin for people who aren't sick but are in contact with carriers of the virus.

Regeneron halted testing on severely ill patients requiring high-flow oxygen or mechanical ventilation after the independent Data and Safety Monitoring Board determined that the drug was unlikely to help them.

The drug is a combination of two monoclonal antibodies — lab-made clones of the antibodies produced naturally in people who have recovered from COVID-19. The antibodies bind to the virus' spike protein and block the virus' ability to enter cells.

Dr. Aruna Subramanian, professor of infectious diseases at Stanford and lead investigator for the inpatient trial, said the 21 hospitalized patients in the study receive a high dose like Trump, a lower dose or a placebo. Subramanian plans to expand the inpatient trial to 45 patients. The outpatient study has enrolled a little more than 40 of the 60 patients researchers intend to sign up.

"There's enough promising evidence that it helps people early in the infection," Subramanian said. "What we don't know is whether it helps people who are pretty sick but not critically ill."

**Bamlanivimab / Eli Lilly / Stanford and UCSF:**

Stanford and UCSF are testing the Eli Lilly monoclonal antibodies on outpatients after the pharmaceutical company halted trials on hospitalized COVID-19 patients because of adverse results.

Dr. Andra Blomkalns, chair of emergency medicine at Stanford and the lead in the Eli Lilly outpatient trial, said she is now enrolling older people with comorbidities like heart disease, chronic lung disease, a history of strokes and severe obesity shortly after they test positive.

The hypothesis is that the bamlanivimab monotherapy, which is very similar to the Regeneron monoclonals, might work best early in the infection. Although about 400 patients have been enrolled in the Lilly phase 3 trials nationwide, to date fewer than 10 have been enrolled at Stanford and UCSF.

Matthay, who headed up the Lilly monoclonal study with LY-CoV555 at UCSF, said the cancellation of this inpatient trial was disappointing, but "just because this one did not work, doesn't mean another one won't work for hospitalized patients."

Blomkalns said the testing criteria has been changing. She expects the outpatient trial to open soon to adolescents ages 12 and up to determine whether the drug can be used as a preventive.

**Designer monoclonal antibodies / Vir Biotechnology, San Francisco**:

Scientists at Vir are studying several types of monoclonal antibodies, including a type engineered to activate T cells, which can search out and destroy cells infected with the coronavirus. A study published in the journal Nature in October found that monoclonals, modified to bind with certain receptors, stimulated T cells and improved the human immune response.

"By observing and learning from our body's powerful natural defenses, we have discovered how to maximize the capacity of antibodies through the amplification of key characteristics that may enable more effective treatments for viral diseases," said Herbert Virgin, the chief scientific officer at Vir and co-author of the study.

A similarly modified monoclonal antibody, leronlimab, is being studied in coronavirus clinical trials by its Washington state drugmaker, CytoDyn, which has developed drugs to treat HIV. The company's chief medical officer is in San Francisco, and the company that does laboratory tests of leronlimab is in San Carlos.

**Anti-inflammatory drugs**

**Colchicine / UCSF (San Francisco and New York):**

The anti-inflammatory drug commonly used to treat gout flare-ups is being studied by scientists at UCSF and New York University. The drug short-circuits inflammation by decreasing the body's production of certain proteins, and researchers hope that it will reduce lung complications and prevent deaths from COVID-19.

Preliminary results from a clinical trial found that "Colchicine can be effective in reducing systemic symptoms of COVID-19 by inhibiting inflammatory biomarkers."

**Selinexor / Kaiser Permanente:**

Kaiser hospitals in San Francisco, Oakland and Sacramento are studying selinexor, an anticancer drug that blocks a key protein in the cellular machinery for DNA processing. Preliminary findings during the trials indicated that low doses of selinexor helped hospitalized patients with severe COVID-19. The drug has both antiviral and anti-inflammatory properties, and it's administered orally, according to Kaiser's Dr. Jacek Skarbinski.

**Vaccines**

**VXA-COV2-1 / Vaxart, South San Francisco:**

The biotechnology company Vaxart is testing VXA-COV2-1, the only potential vaccine in pill form. It uses the genetic code of the coronavirus to trigger a defensive response in mucous membranes. The hope is that the newly fortified membranes will prevent the virus from entering the body.

"It's the only vaccine (candidate) that activates the first line of defense, which is the mucosa," said Andrei Floroiu, Vaxart's chief executive. He said intravenous vaccines kill the virus after it is inside the body, but this one stops it beforehand.

The drug, which is effective against influenza and norovirus, induced both neutralizing antibodies and T cells during coronavirus drug trials, according to preliminary trial results published in September.

**VaxiPatch / Verndari (Napa and UC Davis Medical Center):**

A Napa company, Verndari, is studying vaccines for COVID-19 that can be delivered using an adhesive patch. Researchers at UC Davis Medical Center in Sacramento said the patch caused an immune response in preclinical tests.

An October report in the online journal ScienceDirect touted the system, saying it "could serve as a 'shelter in place' vaccination strategy, in which vulnerable populations receive delivery at home without needing to engage an already-overtaxed health care infrastructure."

If the vaccine is proven effective and safe, patients could receive it through the mail, according to Dr. Daniel Henderson, Verndari's chief executive officer.

**ChAdOx1 / AstraZeneca (UCSF, San Francisco General Hospital, Bridge HIV):**

Enrollment is under way at 80 sites in the United States, including three in the Bay Area, for the phase 3 trial of AstraZeneca's vaccine, developed by Oxford University from an adenovirus, which typically causes colds in chimpanzees.

At least 1,000 of the 40,000 participants in the phase 3 AstraZeneca trial will be from the Bay Area, including 500 at Sutter Health's East Bay AIDS Center in Oakland, 250 at Zuckerberg San Francisco General Hospital and another 250 at Bridge HIV San Francisco.

An interim analysis of trials in Britain and Brazil showed the vaccine was 90% effective in preventing COVID-19 in 131 patients who got a half-dose of the vaccine by mistake. The vaccine was only 62% effective in people who got a full dose, leading to major questions about the results and how the trial was conducted.

Bay Area trial leaders Dr. Annie Luetkemeyer of UCSF and Dr. Susan Buchbinder, director of Bridge HIV and a UCSF professor of medicine and epidemiology, are hoping future trial results are more clear. That's because AstraZeneca's vaccine is cheaper than those made by its rivals Pfizer and Moderna, whose vaccines were 95% and 94.5% effective in preliminary tests.

The AstraZeneca candidate can also be stored at temperatures between 36 and 46 degrees Fahrenheit, which is orders of magnitude higher than the Pfizer and Moderna vaccines. The Pfizer and Moderna vaccines must be kept at 94 degrees below zero Fahrenheit, colder than many storage facilities can manage.

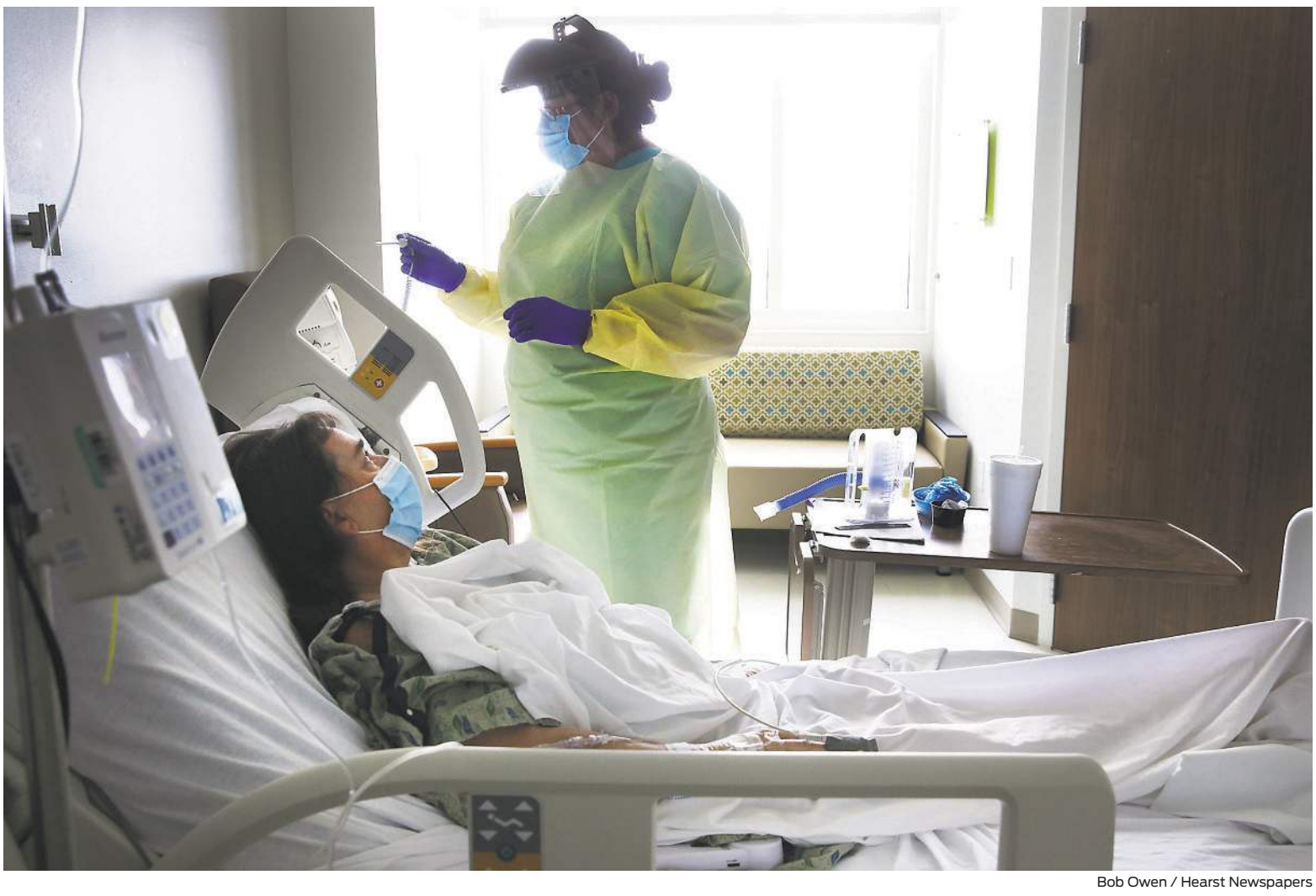
**Johnson & Johnson (Stanford University)**

The Johnson & Johnson clinical trials have enrolled 20,000 of the 60,000 volunteers worldwide that officials expect to have signed up by Christmas. That includes 70 people at Stanford.

The vaccine is, like the AstraZeneca version, a chimpanzee adenovirus that was genetically altered so that it carries the RNA of the coronavirus spike protein. The technique inspires the body to produce antibodies that block the protein without causing people to get sick.

"Phase 2 studies show that it produces a good immune response and the early results of phase 3 show that it's safe," said Dr. Philip Grant, assistant professor of infectious disease at Stanford and leader of the trial.

Grant, who is enrolling about 15 people a day for the trial, said he doesn't expect results on the vaccine's effectiveness until sometime in March.



Bob Owen / Hearst Newspapers

**Nurse Olivia Rocha, in the University Hospital COVID Unit in San Antonio in June, prepares to take the temperature of patient Betty Talton, who is using a new drug against the coronavirus, remdesivir, made by Gilead Sciences originally as a treatment for Ebola.**

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