OPINION

SEEKING EFFECTIVE DRUGS FOR ALZHEIMER'S DISEASE

BY DAVID SCHUBERT

The physicist Max Planck once said, "Science advances one funeral at a time." Until a dominant individual who controls the discourse in a field of science dies, science will not progress. In fact, this argument may explain why the pharmaceutical industry has been unable to make a drug that prevents the progression of Alzheimer's disease or any other neurodegenerative disease. Until their current ideas about Alzheimer's drug discovery are dead and buried, alternative approaches will never have the opportunity to be tested.

Over 44 million people worldwide have Alzheimer's. This number is expected to increase threefold by 2050, when it will overwhelm our health care systems as it currently does millions of caregivers and their families. Given this need, why are there no good drugs for Alzheimer's, and what is the best path forward?

As a medical research scientist who is developing drugs to treat Alzheimer's, I am convinced that there is a fundamental flaw in the way drug discovery is currently carried out, and that we will have no cures until the beliefs held by the pharmaceutical companies that lead to this flaw is buried. Since this will not happen in the near future, alternatives to the current funding for Alzheimer's drug development are required immediately to curtail the impending Alzheimer's health care disaster.

The pharmaceutical industry has a very dogmatic set of rules that it uses for the development of drugs.

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For example, they must know the molecular target of the drug and the structure of the drugs must fit into a defined mold. These ideas have worked well for some conditions, but have completely failed for neurodegenerative diseases where the pathology is more complex. In fact, most drugs were in the clinic before their structure was known, and many do not fit the required mold.

If the drug discovery protocols used by pharmaceutical companies for neurodegenerative diseases have failed and no funeral for these ideas is imminent, what are the alternatives for supporting Alzheimer's research and clinical trials? There are three, but from my perspective only one is viable at this time.

The first is the National Institutes of Health (NIH), the major source of funds for academic medical research in the U.S. However, until recently, money for Alzheimer's research was only one-10th that for AIDS research on a per patient basis. Additional funds have been allocated for next year, but this will not solve the problem. This is because the scientists that decide how the funds are spent are frequently associated with pharmaceutical companies and thereby support proposals that are consistent with industry thinking. Until the biases of this group of scientists are tempered by other ideas, there will be little funding for innovative drug discovery.

The second alternative is foundations. These are frequently charitable patient advocacy groups that are supported by individuals rather than taxes. However, they also depend upon advice from scientists previously associated with industry who funnel limited research dollars to their like-minded friends. In fact, there are tribes of scientists in each disease area that tend to influence both NIH and foundation funding. They aggressively defend their tribal interests, thus preventing the entry of new ideas and experimental approaches that are required to cure the diseases that they work on.

Until funerals are held for the dominant but ineffective ideas driving current Alzheimer's drug discovery, I believe that the only way that we are going to get a successful Alzheimer's drug into the clinic is through the support of wealthy individuals. There are over 500 billionaires in the U.S. In the context of this amount of money, funding both the drug development costs in independent academic laboratories and collecting sufficient clinical trial data to determine if a drug candidate is likely to be safe and effective is not a large investment. NIH grants are typically $500,000 per year, and a clever series of clinical trials sufficient to determine if a drug candidate is likely to be effective costs $10 million to $20 million. Although investing in Alzheimer's drug discovery is a gamble, a viable drug candidate could be sold to a pharmaceutical company at a tremendous profit, with the additional satisfaction of having cured one of the world's most devastating diseases.

Scientists like myself who have Alzheimer's drug candidates stalled in the pipeline get emails several times a week from caregivers whose relative is dying from Alzheimer's and want to know when our drug candidate will be in clinical trials and available to them. Wouldn't it be great if we could say that the trials have started, thanks to the generosity of a wise individual who really does care about our aging population?

Schubert, Ph.D., is a professor at Salk Institute for Biological Studies.

BANKING ON CALIFORNIA'S UNIQUENESS, DIVERSITY

BY JOE MATHEWS

If California were a bank, what sort of bank would it be?

Banc of California has a new, intriguing answer. In just six years, "California's bank" has emerged as one of America's fastest-growing banks — from $700 million in assets in 2010 to nearly $10 billion today. Since the end of 2014, it's been the best performing bank stock in the country, while pursuing a banking strategy even Bernie Sanders might love: serving the state's diverse array of small and midsized businesses.

More than 100 banks have branches in California, and many of them are community banks that seek to serve the same people as Banc of California. But the intensity of Banc of California's focus on defining itself by its Californianess is unmatched — and noteworthy for any enterprise, especially a bank in a globalized era when consolidation across borders is all the rage in the financial industry.

Banc of California has billed itself as "California Strong" and "the bank for those seeking, supporting and living the California dream." It has touted California icons among its customers (Wolfgang Puck to Vin Scully), and built partnerships with USC, San Diego State, Pepperdine, and the L.A. Unified School District "Partnership" schools associated with former Mayor Antonio Villaraigosa, an advisor to the bank.

In so doing, Banc of California is betting that a grounded-in-the-Golden-State enterprise can prosper in this new and different California era, when, for the first time, the majority of Californians are born and raised in California.

"What's good for California is good for the Banc of California," the bank's chairman and CEO Steven Sugarman told me recently at the bank's headquarters in Irvine. Sugarman, 41, is himself a homegrown Californian — from Fullerton, where his mother serves on the school board.

Banc of California is making an argument that California's economy is so varied and peculiar that it needs banks with deep local knowledge to serve it effectively. While bigger corporations dominate many American urban economies, California's business base is "very democratic," in Sugarman's words, with properties owned by individuals and families. Since so many Californians work for themselves, even very credit-worthy people don't qualify for traditional mortgages.

Sugarman says the bank's data also suggests that California businesses — particularly those owned by Latinos and women — are far more credit-worthy than many lenders have recognized. To better reach those customers, Banc of California in 2014 acquired Banco Popular's 20 Southern California branches (including $1.1 billion in deposits).

In this context, California is not just a state but a business model; to attract diverse businesses, Banc of California needs to show commitment to communities. This is one reason why the bank has prioritized its Community Reinvestment Act lending — to community development projects like affordable housing — and trumpets its "Outstanding" rating in such lending at every opportunity.

Such a strategy has its critics; many banks consider CRA lending an unprofitable chore. And in a conservative commercial banking world that holds that "anything that grows fast is a weed," Banc of California's rapid success can be seen as suspicious, perhaps predicated on ill-advised pricing or risky lending.

Sugarman says the bank invests heavily in risk management and in hiring people who really understand the state's markets. The rapid growth is in part a function of launching a bank in the wake of a massive

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recession that left an enormous void in lending and liquidity as California-based banks failed and consolidated.

Sugarman makes a strong case for a sort of California patriotism in matters of banking. After all, when Californians bank with national or multinational banks, their deposits are loaned or invested outside California. Banc of California is busy pointing this out to governments and nonprofits across the state that are still banking with multinational banks less focused on our own communities.

The bank also wants to continue expanding in Northern and Central California, and to partner with California-based online lenders and technological innovators.

Will this California model endure? A bank tied to a state as volatile as California can expect a bumpy ride in the long term. But the Banc of California is, for now, making a compelling case that it pays to bank on California.

I dropped by its Pasadena branch recently, to find out about a bank program that allows children to open no-fee savings accounts (that pay a relatively generous 3 percent interest for accounts below $10,000). Within 30 seconds of my walking through the door, I'd been offered coffee, a freshly baked cookie, and a comfortable chair. As well as a comforting question from the young banker assisting me: "Where are you from in California?"

Mathews writes for Zócalo Public Square. Its website is www.zocalopublicsquare.org.

STATE SENDS STRONG MESSAGE: HELP ENGLISH LEARNERS

BY HECTOR VILLAGRA

The California Department of Education (CDE) sent a strong signal to school districts across the state last week with its finding that the Los Angeles Unified School District is shortchanging its high-need students. In ordering L.A. Unified to provide those students with hundreds of millions of dollars in new or improved services, the department made it clear that local school officials must adhere to strict rules on spending and ensure sufficient funding and support to students who need it most.

The state Department of Education was responding to a complaint filed by Community Coalition of South Los Angeles and a parent of two high-need L.A. Unified students over the district's use of the Local Control Funding Formula (LCFF), which promotes equity by mandating additional funding to English learners, low-income students and foster youth. But rather than setting aside LCFF dollars for these high-need students, as the formula requires, L.A. Unified shifted the money into its general fund. That violates both the letter of the law and the purpose of LCFF, which is to even the playing field for all students.

The potential of LCFF can be seen no more clearly than in L.A. Unified, which receives hundreds of millions of dollars in supplemental funds for high-need students. The district serves hundreds of thousands of these students, many of whom are struggling academically and desperately require more services and support.

Consider the situation faced by Reyna Frias, the parent who joined Community Coalition in the complaint to the Department of Education. Ms. Frias's two children attend L.A. Unified schools in East Los Angeles, one in the third grade and the other in seventh. Both are classified as high-need students. They are eligible for free and reduced-cost lunch because of their family's income level, and one is an English learner. L.A. Unified receives additional funding from the state for each high-need student it enrolls, and in return it must provide targeted services for those students.

Ms. Frias watched her children fall far behind in school for years because of L.A. Unified's failure to provide them with mandated programs and support. Ms. Frias volunteers at both of her children's schools and saw most of the other students having the same issues. English learners in particular were being neglected, she said, and she observed severe delays in the district's process reclassifying students as fluent English speakers. Last year, when she learned that the district was diverting hundreds of millions of dollars away from services for high-need children like hers, she felt like she had no choice but to file a complaint and stand up for all of the students being left behind by the district.

"LAUSD is breaking its promise to provide my children and millions of other students in the future, with the services they need and the law says they should receive," Ms. Frias said.

> L.A. Unified diverted funds meant for English learners, low-income students and foster youth into its general budget. The California Department of Education says that's not acceptable.

The district itself confirms the wide achievement gap between high-need student groups, particularly English learners, and their peers. Its own numbers show that in 2014-15, only 15 percent of English learners and 25 percent of foster youth were on track to pass the classes required for admission to California public universities with a C or better, compared to 46 percent of all L.A. Unified students. Similarly, while 70 percent of students across the district graduate within four years, only 51 percent of L.A. Unified's English learners graduate within that time. Despite these staggering numbers, L.A. Unified actively diverted money away from these vulnerable student groups.

After two years of L.A. Unified shortchanging students, the CDE stepped in last week and ordered L.A. Unified to redirect the money back to its high-need students and to create millions of dollars in new or improved services for them. This is a strong first step to protect the students who need the most help and to ensure that the promise of LCFF is fulfilled. L.A. Unified can do right by all of its students by following the law and immediately providing services for these struggling students, or it can continue standing by, as hundreds of thousands of them fall further behind.

The ACLU of Southern California calls on the California Department of Education to continue its efforts to hold districts accountable to both the letter and spirit of the new law. We also call on parents, students and all stakeholders to monitor your school districts closely and provide input into your district's spending priorities and file complaints when the district refuses to follow the law. We must all do our part to ensure that our students have a fair and equal chance to succeed.

Villagra is executive director of the ACLU of Southern California.