



# HEALTHCARE

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## UCI Spearheads \$109M Down Syndrome, Alzheimer's Study

### New Center Planned; UCI MIND Support

The **University of California-Irvine** is undertaking a five-year, multi-million dollar project to expand research on Alzheimer's disease in people with Down syndrome.

The **National Institute of Health** awarded a \$109 million grant to the **Alzheimer's Biomarkers Consortium-Down Syndrome** in late October.

The international team, led by UCI principal investigators **Elizabeth Head** and **Mark Mapstone**, aims to identify biomarkers that indicate the progression of Alzheimer's disease in adults with Down syndrome.

Down syndrome is the most common neurodevelopmental disorder, affecting an estimated 250,000 individuals in the U.S., according to the **Centers for Disease Control and Prevention**.

Uncovering biomarkers will influence clinical trials and accelerate new therapies that prevent and treat Alzheimer's disease, said Head, professor and vice chair for research in the **Department of Pathology & Laboratory Medicine** at UCI.

#### Chromosome 21

About 25% of people with Down syndrome have signs of Alzheimer's disease, and risk increases with age, according to the **National Down Syndrome Society**.

The link between people with Down syndrome and Alzheimer's disease is thought to come from having three copies of chromo-



UCI researchers to investigate connection between Down syndrome and Alzheimer's disease (from left to right: Elizabeth Head; participant Jeremy Throckmorton; UCI Down syndrome program founder Ira Lott; Mark Mapstone)

some 21, according to Mapstone, a professor in the **Department of Neurology** at UCI.

Chromosome 21 is where a gene that produces the protein amyloid is located. Patients are thought to overproduce amyloid, which is a key indicator of Alzheimer's disease, he said.

The research team will assess an assortment of factors such as biomarkers, genetic

factors, and cognitive and physiological function in hundreds of patients, which will be seen every 16 months for up to four visits.

#### UCI MIND

Both Down syndrome and Alzheimer's disease are gaining support—and financial backing—at UCI.

"It's tremendously encouraging to see this

kind of support for Alzheimer's disease and Down syndrome research," **Michael Stamos**, dean for the **UCI School of Medicine**, said in a statement. "The awareness is building on a national scale and is certainly reflected in the environment at UCI, where we recently approved a new Center for Down syndrome research that will get underway in the coming months."

In addition, **UCI MIND**, the school's institute for memory impairments and neurological disorders, was awarded a \$14.4 million grant from the **National Institutes of Health** in August for research on dementia and Alzheimer's disease.

An estimated 6 million people live with Alzheimer's disease, and it affects more than 80,000 local residents, according to UCI MIND. ■

#### UCI School of Medicine

UCI School of Medicine

- **FOUNDED:** 1896 (predecessor institution)
- **DEAN:** Dr. Michael Stamos
- **FACULTY:** 1,011
- **ENROLLMENT:** 400+ medical students, 130 PhD and Master of Science students, and 700+ residents and fellows each year
- **NOTABLE:** UCI School of Medicine received \$190 million in research grants in 2019-2020, representing 36% of total grants and the second year it achieved over 20% growth

## Ducommun

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of the impact from the commercial aerospace difficulties, it said.

The company faced "significant headwind from the pandemic in commercial aerospace along with the continued grounding of the 737 MAX," according to Oswald, whose company has made a variety of structural systems for the 737 platform since its inception.

The Boeing 737 MAX was grounded in March 2019 after two crashes of the jetliner killed 346 people.

**Federal Aviation Administration** chief **Steve Dickson** on Nov. 18 signed an

order that paves the way for the 737 MAX to return to commercial service. The company reported that net income for the 2020 third quarter ended Sept. 26 was \$6.5 million, down from \$8.3 million for the third quarter of 2019, while net revenue slid to \$150.4 million from \$181.1 million during the same time frame.

#### Fast-Grower

The recent drop in sales reverses several years of gains for the Santa Ana company.

Ducommun ranked No. 5 on last week's Business Journal's list of fastest-growing local public companies over a two-year period, among those with \$500 million or



Sandpointe South Coast Metro complex holds aerospace firm's HQ

more in revenue.

The ranking was based on the company's approximately \$689 million in revenue for the 12 months ended June 27, just as the full force of the pandemic was hitting the U.S. economy. It posted two-year growth of 17.5% over that two-year period.

#### Defense Work Strong

"In regards to the Q4 outlook, our signif-

icant backlog in defense with the many growth programs mentioned earlier, will provide the same strong revenue," Oswald told financial analysts on Oct. 28. "We estimate that revenue will again be led by defense, but the business overall, as mentioned in the Q2 call will be down year-over-year by 14% to 18% due to commercial aerospace."

Oswald said next year "will be a return

to growth for the company."

"Ducommun has successfully built out its defense business in the past few years and we see continued momentum," Oswald told the Business Journal. "We also anticipate commercial aerospace build rates to also improve, especially in 2022 and 2023."

The defense segment reflects a "diverse array of demand for nearly all aspects of the company's product portfolio," according to Oswald, adding that the military and space "backlog remains at record levels."

One key issue for the aerospace and defense industry is whether there will be consolidation as a result of the pandemic.

Oswald's view: "We will have to see as it is difficult to predict right now until we know more about the timing of the vaccine and commercial aerospace recovery." ■

#### DUCOMMUN INC.



- **FOUNDED:** 1849
- **HEADQUARTERS:** Santa Ana
- **CEO, PRESIDENT, CHAIRMAN:** Stephen Oswald
- **TICKER SYMBOL:** DCO (NYSE)
- **BUSINESS:** supplies products, engineering, and support services to aerospace and defense industry
- **Q3 2020 REVENUE:** \$150.4 million, down from \$181.1 million for the third quarter of 2019
- **NOTABLE:** No. 5 on the Business Journal's Nov. 23 list of fastest-growing large public companies