Lawrence E. Burkhart Memorial Award

Alex Kauffman and James Trettin are co-recipients of the Lawrence E. Burkhart Memorial Award for the spring 2021 commencement.

The honor is bestowed upon graduating seniors, who are named Outstanding Senior Student in Chemical Engineering, with emphasis on scholastic performance. Recipients are selected by department faculty. Burkhart, the award’s namesake, was a member of the department faculty from 1960-1988.

Alex Kauffman, from Epworth, Iowa, is receiving a B.S. in chemical engineering and will graduate with summa cum laude honors and a perfect 4.0 grade point average. He is among the top two percent of graduates academically in the College of Engineering.

In addition to working toward his degree, he has spent much of the last year working part-time as a process development engineer with Renewable Energy Group (REG) of Ames, Iowa. He has been assembling and troubleshooting a pilot plant hydrotreater in conjunction with Iowa State University’s BioCentury Research Farm. This project is an important step for producing renewable diesel fuel, something Alex is passionate about along with other bio-renewable technologies.

Alex has also worked as an undergraduate research assistant at Iowa State, where he studied the characteristics of carbon-supported heterogenous catalysts with Dr. Brent Shanks. This work is driven by the need for more robust and selective catalysts for the future bio-refinery. Here, he was involved with more than 450 hours of reactor operation on a liquid phase, packed bed reactor for the hydrogenation of acetophenone. Alex would like to give a special thanks to a former Ph.D. student from Shanks’ group, Alireza Saraeian, for being a fantastic engineering and life mentor while working together.

During his time in the Department of Chemical and Biological Engineering he also used a semester to take part in a co-op with LyondellBasell Industries in Houston, TX as well as interning with POET Biorefining in Scotland, S.D.

Alex has been part of the Tau Beta Bi engineering honor society; the American Institute of Chemical Engineers Iowa State student chapter; a member of Engineers Without Borders; and a member of the dean’s list since 2017. He has received the Thor and Karen Hansen Scholarship, the Mike and Jean Steffenson Scholarship and the Beisner Scholar Award in the Department of Chemical Engineering.

Following graduation he will be employed as a process engineer with ADM in Southport, N.C.
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**James Trettin**, from Newton, Iowa, is receiving a B.S. in chemical engineering and will graduate with summa cum laude honors and a perfect 4.0 grade point average. He is among the top two percent of graduates academically in the College of Engineering.

He has been an undergraduate research assistant in the Department of Chemical and Biological Engineering, working with Dr. Jean-Philippe Tessonnier. His research included creating novel biobased polymers to enhance the hydrophobicity of nylon and developing hydrophobicity testing methods. This work has led to three presentations: at the 14th ISU Symposium on Undergraduate Research and Creative Expression in 2020; the American Institute of Chemical Engineers (AIChE) 2020 Undergraduate Student Poster Competition; and at the Gulf Coast Undergraduate Research Symposium in 2020, where he was awarded the honor of Best Presentation – Materials Section.

James also participated in the Griswold Undergraduate Research Interns program, where students are paired with department faculty members for hands-on research work and are exposed to the topic of intellectual property in research. Through this program James studied electrochemical production of ammonia with Dr. Wenzhen Li and was also able to broaden his understanding of intellectual property.

James also spent a summer as an intern with Merck, Inc. in Mirabel, Riom, France, where he managed logistical systems, gained knowledge on procedures for vaccine and ophthalmic drug fabrication and dealt with international supply chains.

Trettin was an Iowa State Cardinal Leadership Scholar; a recipient of the Kenneth L. Garrett Scholarship in Chemical and Biological Engineering, and the Bob Kaiser Memorial Scholarship in Chemical Engineering.

He was a classroom assistant in the CBE department where he facilitated learning in the classroom and outside the classroom in help sessions; was a member of the AIChE Iowa State student chapter; was a member of Engineers Without Borders; and served as a volunteer for the Iowa Science Bowl.

His future plans are to attend Princeton University to pursue a Ph.D. in chemical engineering, with a focus in catalysis or materials for renewable energy applications.
Divyesh Kumar was nominated as a senior marshal as a representative of the top students in the Department of Chemical and Biological Engineering (CBE). Kumar, who will receive his B.S. in chemical and biological engineering, has earned numerous prestigious academic awards during his time as a CBE undergraduate, including a Barry Goldwater Scholarship, and most recently a Dean's Scholarship from the Carver College of Medicine at the University of Iowa, where he will pursue a medical degree after graduation from Iowa State. The scholarship is given based on academic excellence, leadership abilities, and enriching qualities and is presented to a select few members of the entering class.

He has also been noted as accomplished undergraduate researcher who has authored six conference presentations and a manuscript that is currently in review. Kumar has cited being named a Goldwater Scholar as his most notable accomplishment at Iowa State. The nationally renowned scholarship recognizes exceptional sophomores and juniors who aspire to work in the natural sciences, mathematics, and engineering research fields. He was one of three Iowa State University students to receive the honor.

His research activities include conducting stem cell work in the laboratory of Donald Sakaguchi in Iowa State’s Department of Genetics, Development & Cell Biology; working in the biosensing lab of Nigel Reuel in the Department of Chemical and Biological Engineering; participation in the UIowa Carver College of Medicine MSTP SUMR Program, a competitive program for undergraduates interested in becoming academic physicians; work in the Abel Lab at the Fraternal Order of Eagles Diabetes Research Center, Carver College of Medicine, University of Iowa; and National Science Foundation-supported research in an internship with Iowa State’s Center for Biorenewable Chemicals (CBiRC).

Kumar has participated in many volunteer and leadership activities, including serving as a volunteer in the emergency department at Mary Greeley Medical Center in Ames. He has also served his fellow undergraduate students as an ISU Undergraduate Research Ambassador and as an Iowa State Pre-Medical Club Mentor.

In addition to the aforementioned academic honors, Kumar also received support at Iowa State from a Kenneth L. Garrett Scholarship in Chemical and Biological Engineering; a Ralph S. Millhone Endowed Presidential Scholarship; the Chemical Engineering Scholarship Fund; the Iowa State National Merit Scholarship program; and a grant for undergraduate research through the ISU Honors Program.

Divyesh aspires to treat patients, conduct translational research, and help educate the next generation of doctors as an academic physician.
Bachelor’s degrees conferred in Chemical Engineering

Brian David Adrian  
Magna Cum Laude

Hyung Cheol Ahn

Ali Hussain Alabndi

Jaifar Nasser Al-Abri  
Magna Cum Laude

Antonio Joseph Amadio  
Magna Cum Laude

Abigail Recio Boongaling

David Boorom

Logan J. Bopp

Alexander Michael Britton  
Cum Laude

Margie Elyse Clow  
Cum Laude

Ellen Hye-Soo Condon  
Cum Laude

Hover Huxley Reotutar De Peralta

Hannah Grace Dietrich  
Magna Cum Laude

Erin Kai Donaldson  
Magna Cum Laude

Sylvie Harper Eckert

Danielle G. Eeg  
Magna Cum Laude

Tanner Paul Eiswald  
Magna Cum Laude

Charles C. Fields IV  
Magna Cum Laude

Bryce Fredric Frey

Andrew John Gathje

Andrew Robert Gilbertson  
Magna Cum Laude

Haley Marie Greiman  
Magna Cum Laude

Matthew Krieger Grumbine

Dana Noelle Hagglund

Daniel James Hammer

Ali M. A. H. Husain

Tahsin M. Islam

Bryleigh Joyce Janvrin

Lauren E. Jean

John Karl Robert Kaale

Nadia Grace Karl

Alex Matthew Kauffmann  
Summa Cum Laude

Robert Niels Knudsen Jr.  
Cum Laude

Divyesh Piyush Kumar  
Summa Cum Laude

Atharva Sanjay Kushare

Aurelien Eric Le Denmat  
Magna Cum Laude

Jackson A. Lee  
Summa Cum Laude

Zhi Sheng Sheng Lee

Chase Lees  
Magna Cum Laude

Ali F. Marafi

Benjamin James Matlock

Madeline Grace McCollor

Bailey Sean McCrea

Samantha Lenae McCulley

Sarah Marie Miller  
Summa Cum Laude

Michael Orlin Momchev  
Magna Cum Laude

Nathan Bryce Munn

Jaret J. Olderbak  
Magna Cum Laude

Lance Clinton Parish

Christopher W. Paulson

Andrew Michael Ranchino

Sarah K. Reedy

Kaitlyn Ann Marie Roling

Tyler Dean Roling  
Summa Cum Laude

Sean Douglas Sao

Cole Matthew Schwarz

Hassam Asad Shaikh

Hannah Elizabeth Shirar  
Magna Cum Laude

Ashley Renee Shockley

Thomas Simon  
Cum Laude

Jacob Tyler Smith

Jacob Henry Soendker

Maxwell Dylan Southard

Rae A. Stephenson  
Cum Laude

Nurhanani Tana’Em

Danielle Lea Thompson  
Cum Laude

James Lefebvre Trettin  
Summa Cum Laude

Charles Joseph Truka  
Summa Cum Laude

Eric Omar Vleiz Justiniano
Bachelor’s degrees conferred in Chemical Engineering

David Cross Vigil
Anne Nicholle Wallace
  Summa Cum Laude
Alexandra Lea Wittstock
Eden Gebre Woldesenbet
Bo Wullenwaber
Dayton J. Wright
  Summa Cum Laude