DEPARTMENT OF PHYSICS

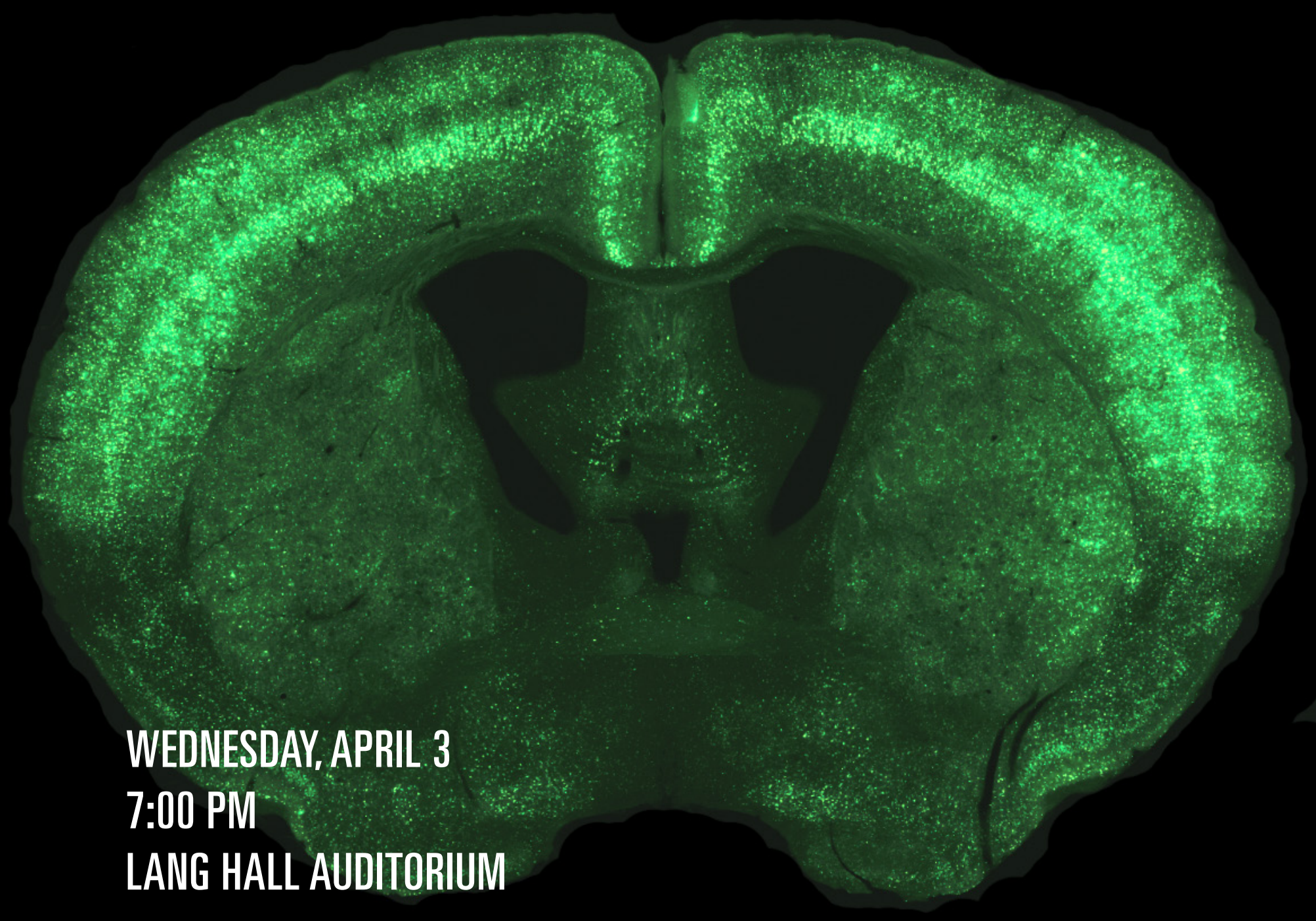
2019 BEGEMAN LECTURE

A DATA-DRIVEN APPROACH TO UNDERSTANDING ALZHEIMER'S DISEASE PREDISPOSITION & PROGRESSION

ANDREAS R. PFENNING

CARNEGIE MELLON UNIVERSITY

Using a combination of large-scale genetic studies, new genomic techniques, and new analytical approaches, Dr. Pfenning and his team use a data driven approach to disentangle how different cell types in the brain contribute to the predisposition and progression of Alzheimer's disease (AD), resulting in the suggestion that microglial gene regulation primarily influences predisposition towards AD. To test those predictions, Dr. Pfenning and his team have developed an *in vivo* high-throughput reporter assay, in which synthesized human DNA is studied in the context of a behaving mouse.



WEDNESDAY, APRIL 3
7:00 PM
LANG HALL AUDITORIUM

Funded in part by the UNI Faculty Senate

University of Northern Iowa