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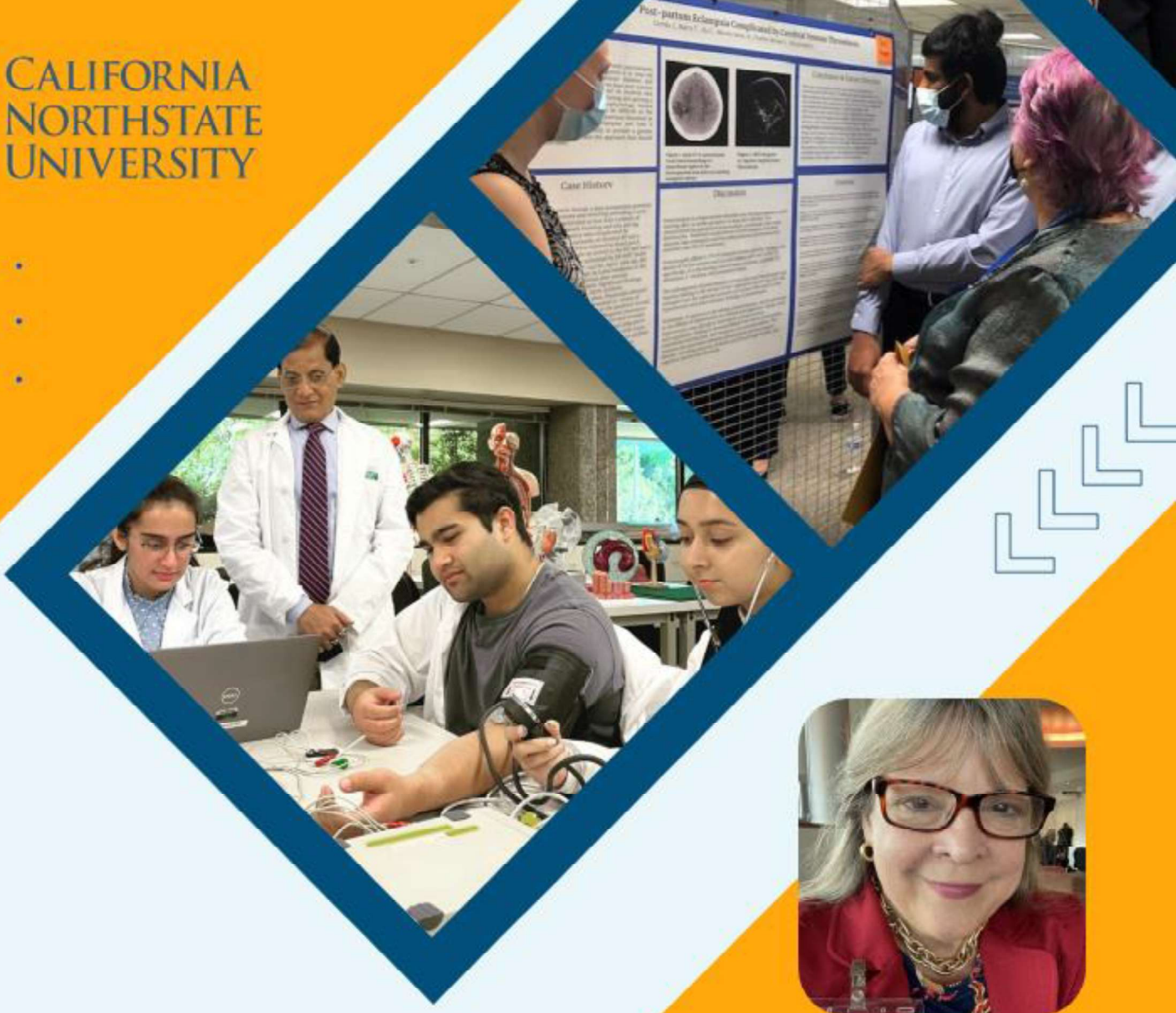

KEYNOTE SPEAKER

DR. JAN NOLTA, PHD

Institute for Regenerative Cures

UC Davis

"Cell and Gene Therapies - The Medicines of the Future"

CALIFORNIA NORTHSTATE UNIVERSITY

2025

RESEARCH SYMPOSIUM

SATURDAY, MARCH 22ND, 2025

COLLEGE of MEDICINE | COLLEGE of PSYCHOLOGY | COLLEGE of PHARMACY | COLLEGE of DENTAL MEDICINE | COLLEGE of GRADUATE STUDIES | COLLEGE of HEALTH SCIENCES

Poster #A38

Valve-Agnostic Cranial Implant (InvisiShunt®) in Normal Pressure 1 Hydrocephalus Ventriculoperitoneal Shunting: A Case Series

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Research Category: Clinical and Case-based Research

Objective Our study aims to examine the efficacy of Valve-Agnostic Cranial Implant (VACI) in improving outcomes, including shunt revision rates, in patients with normal pressure hydrocephalus (NPH) treated with a ventriculoperitoneal shunt. As VACI has only recently been introduced as a low-profile option to limit the need for shunt revision, with its first in-human implantation performed in 2019 and subsequent limited literature on efficacy, this case series seeks to further explore its potential benefits.

Methods This case series was conducted at Hoag Medical Center, Newport Beach, CA. 150 patients diagnosed with NPH, who underwent ventriculoperitoneal shunt procedure incorporating the Valve-Agnostic Cranial Implant (InvisiShunt®), were included in the study. Patient demographics, comorbidities, preoperative symptoms, surgical details, postoperative outcomes, and complications were collected and analyzed.

Results The implantation of VACI in this cohort demonstrated a potential benefit in reducing the profile of the shunt, which may help mitigate risks like infection or extrusion that typically lead to shunt revision surgeries.

Conclusions The use of VACI in the ventriculoperitoneal shunt procedure is associated with better outcomes and fewer observed complications in this case series. With a larger sample size compared to a prior clinical trial on VACI, our findings support the potential of VACI as a more viable and safer alternative to traditional shunt systems for NPH treatment. Further research with extended follow-up is needed to confirm these preliminary results and evaluate long-term efficacy.