



What Have We Learned in the Last 30 Years about Vascular Access?

*Mitchell Henry
Professor of Surgery
The Ohio State University*



THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER

Disclosures

- No financial disclosures

Disclosures

- I am old
- I remember things the way I want to
- I have great memories of many places and people that I have met in our quest to pursue optimal outcomes for our patient on dialysis

Vascular Access for hemodialysis



G. Sommer, M.D.
ell L. Henry, M.D.

ular ess for dialysis—II



ommer, M.D.
Henry, M.D.

or sis—III



Ph.D.

or sis—IV



I.D.
., Ph.D.

V

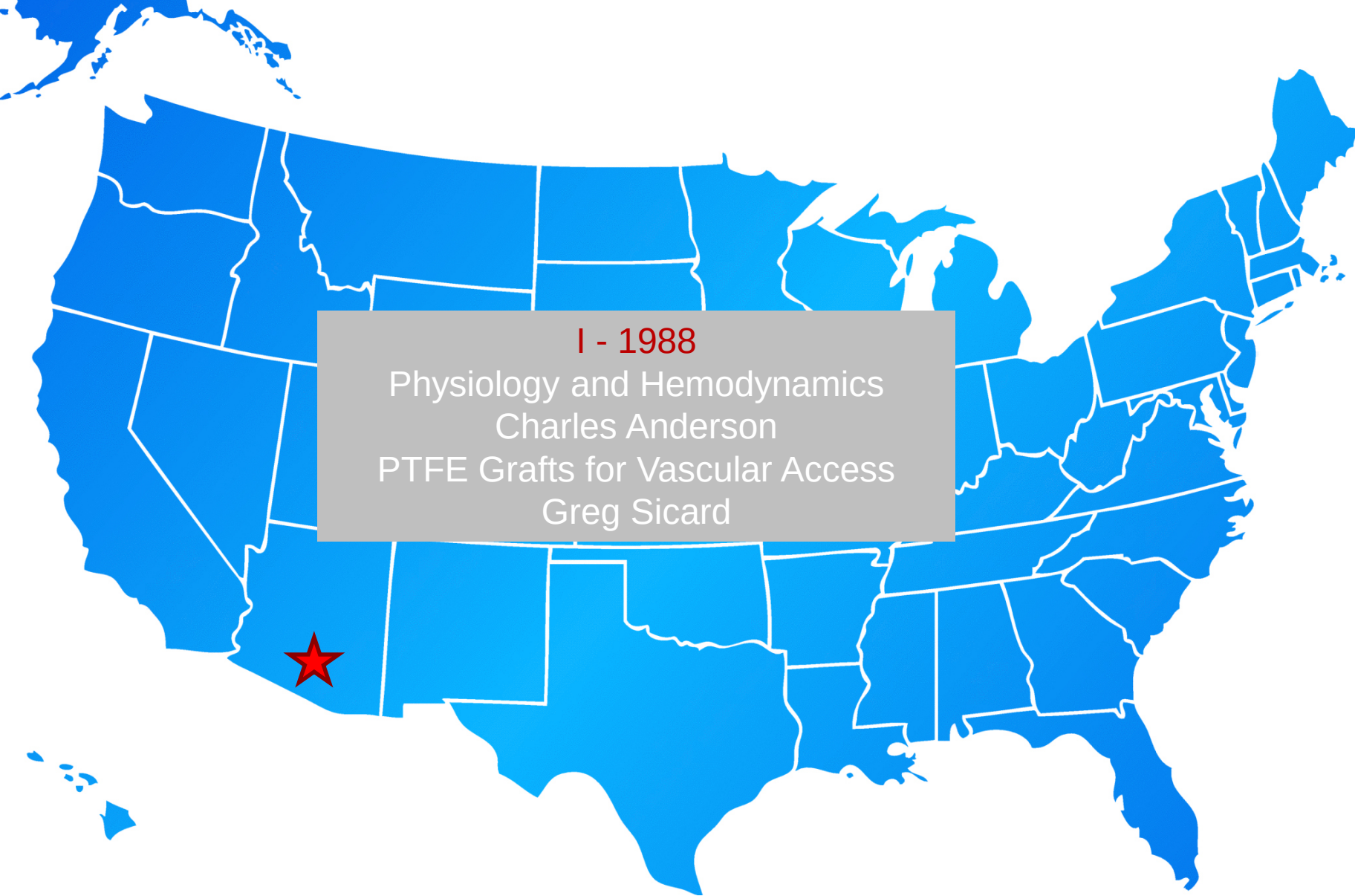




THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER



THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER



I - 1988

Physiology and Hemodynamics
Charles Anderson
PTFE Grafts for Vascular Access
Greg Sicard



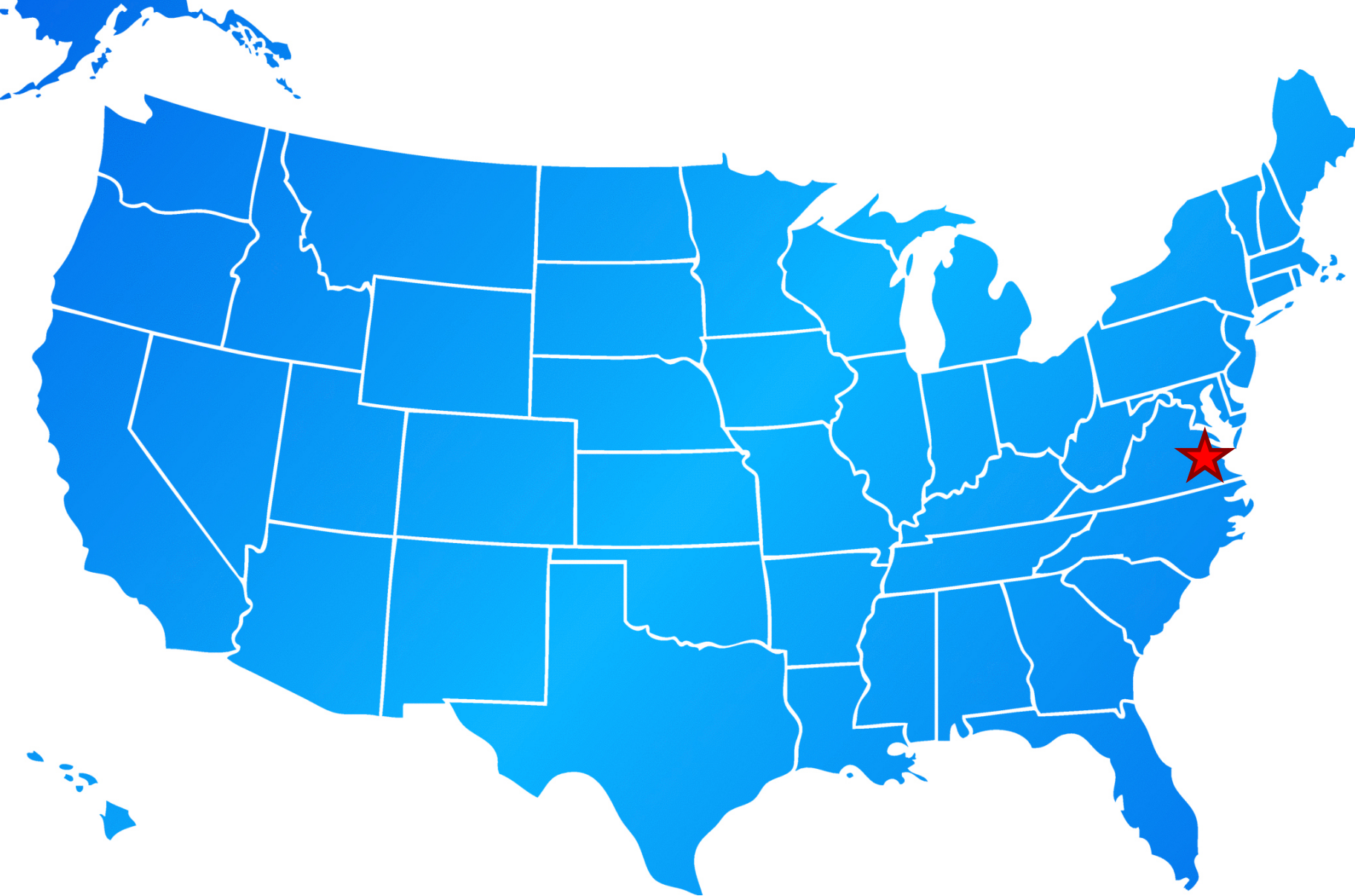
THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER



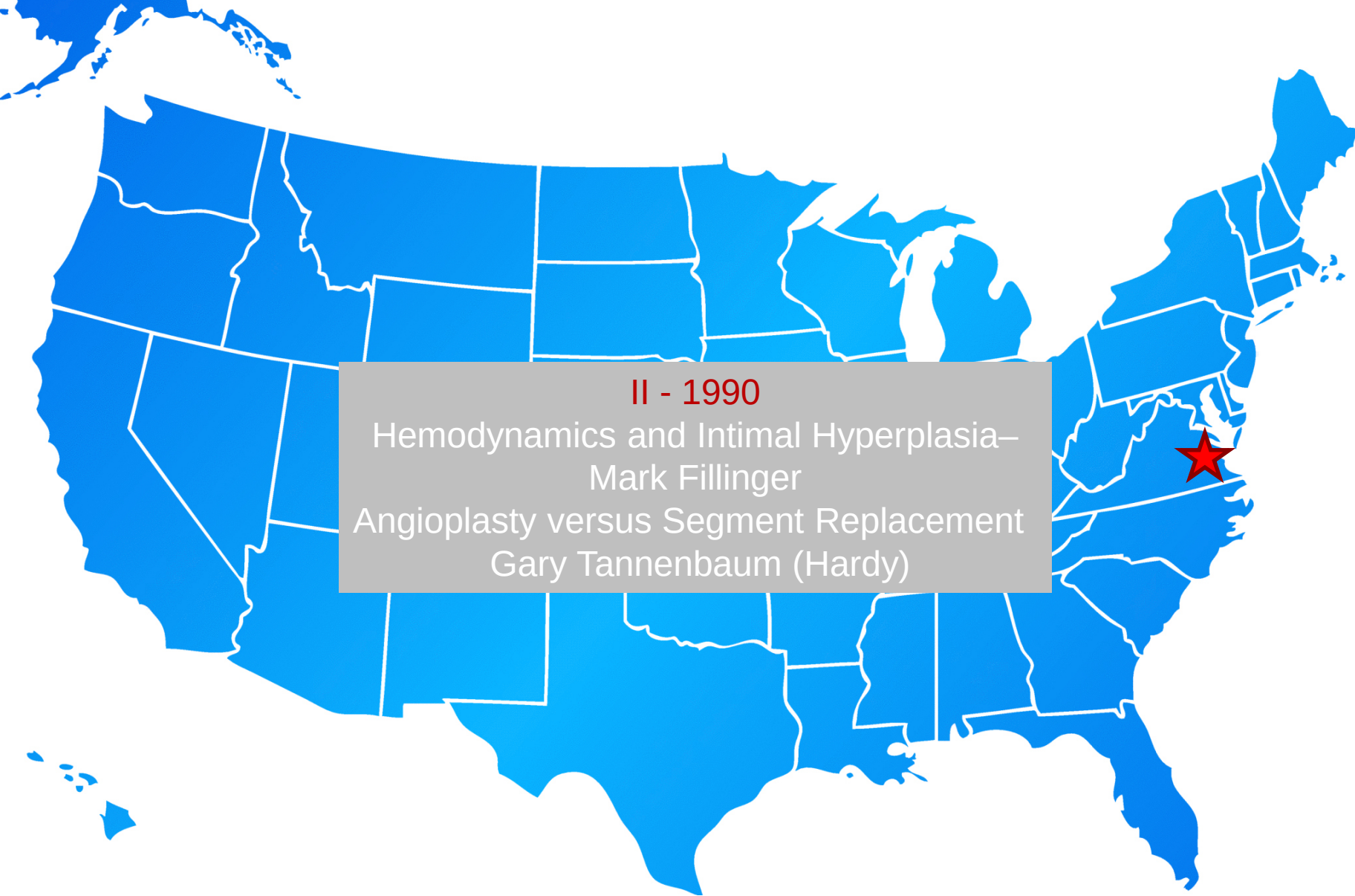
THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER



THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER



THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER

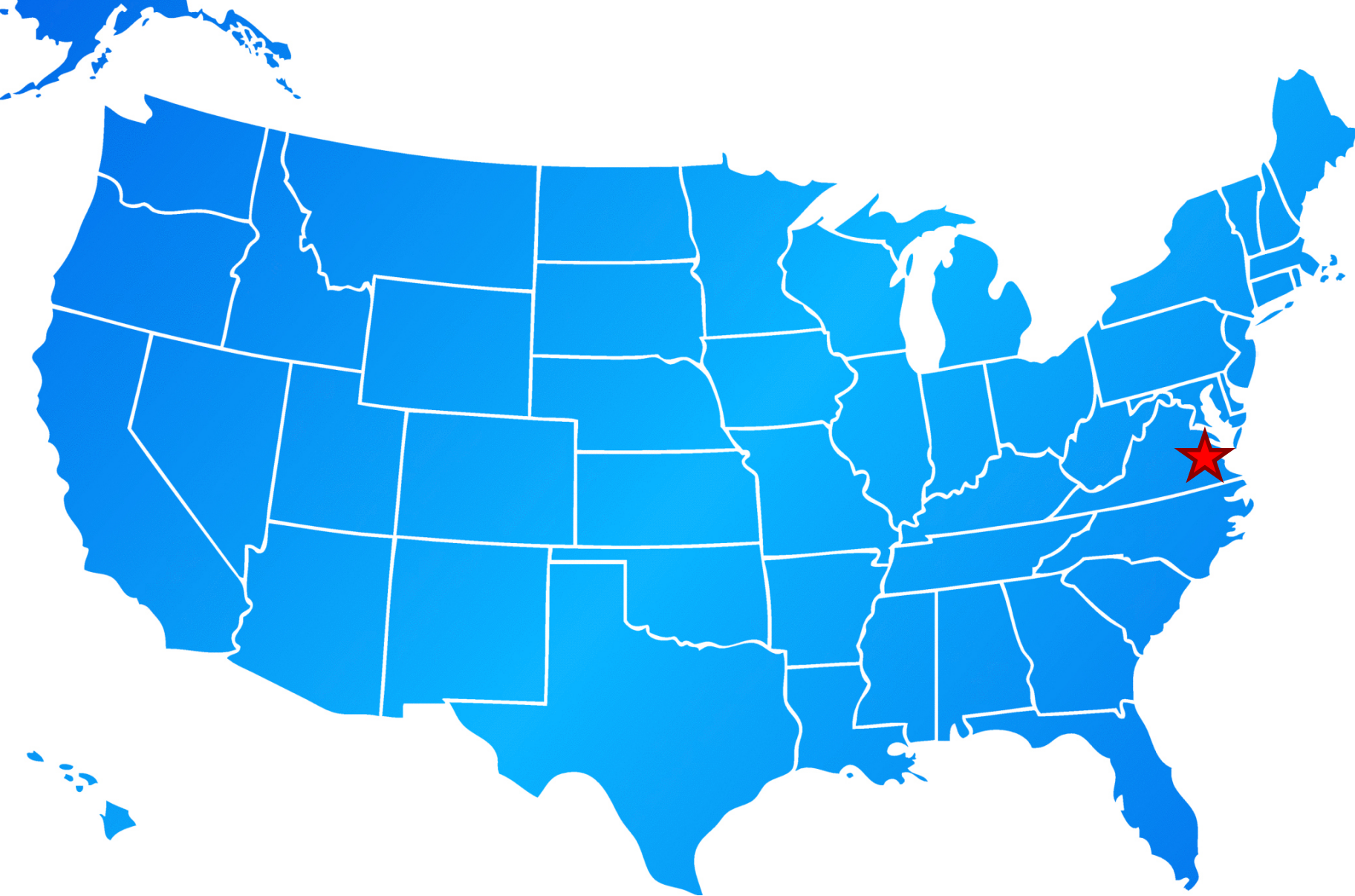


II - 1990

Hemodynamics and Intimal Hyperplasia—
Mark Fillinger
Angioplasty versus Segment Replacement
Gary Tannenbaum (Hardy)



THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER



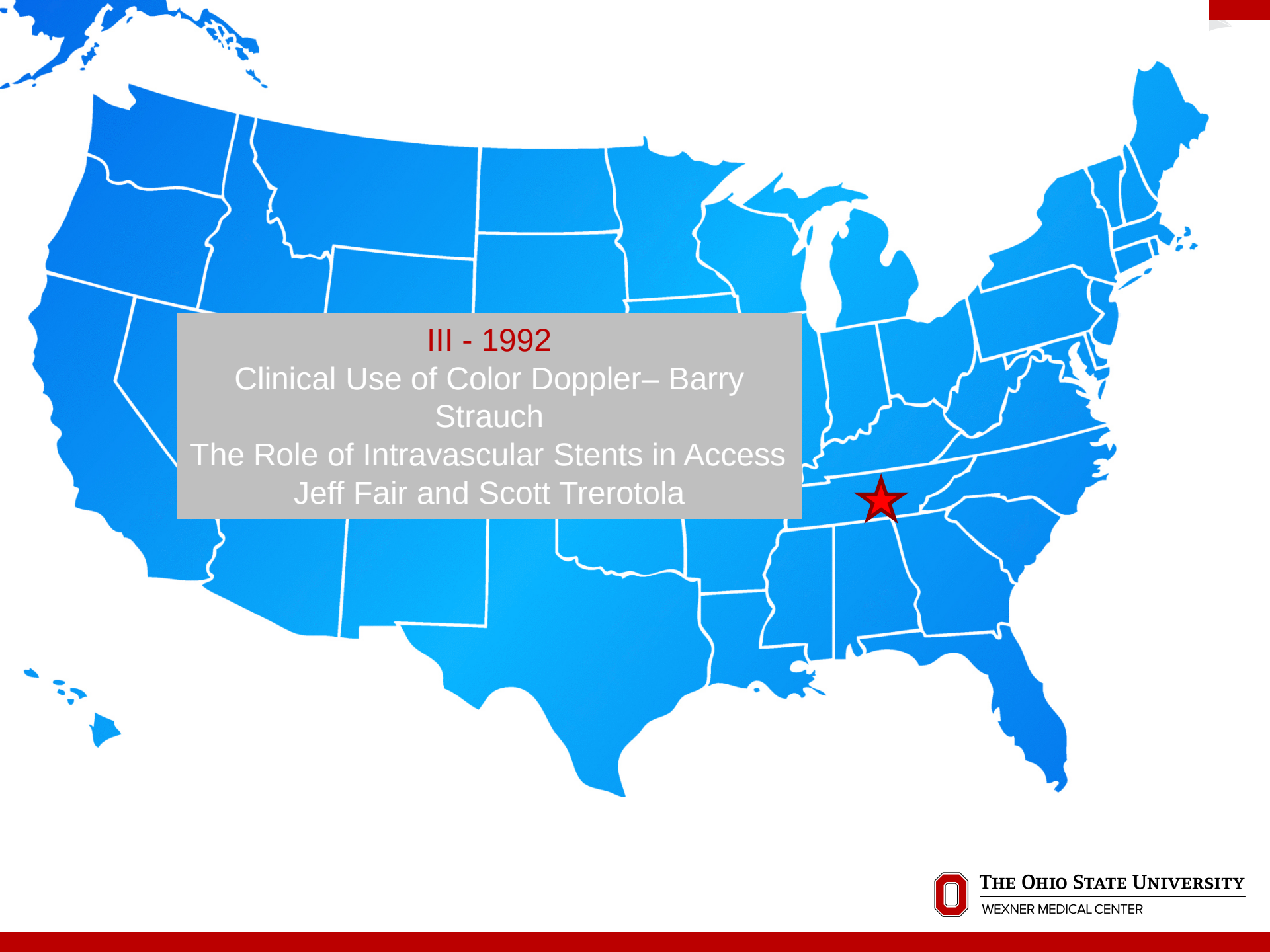
THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER



THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER



THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER

A map of the United States with state boundaries outlined in white. The map is filled with a solid blue color. A red five-pointed star is located in the state of Ohio, specifically in the western part of the state.

III - 1992

Clinical Use of Color Doppler– Barry
Strauch

The Role of Intravascular Stents in Access
Jeff Fair and Scott Trerotola



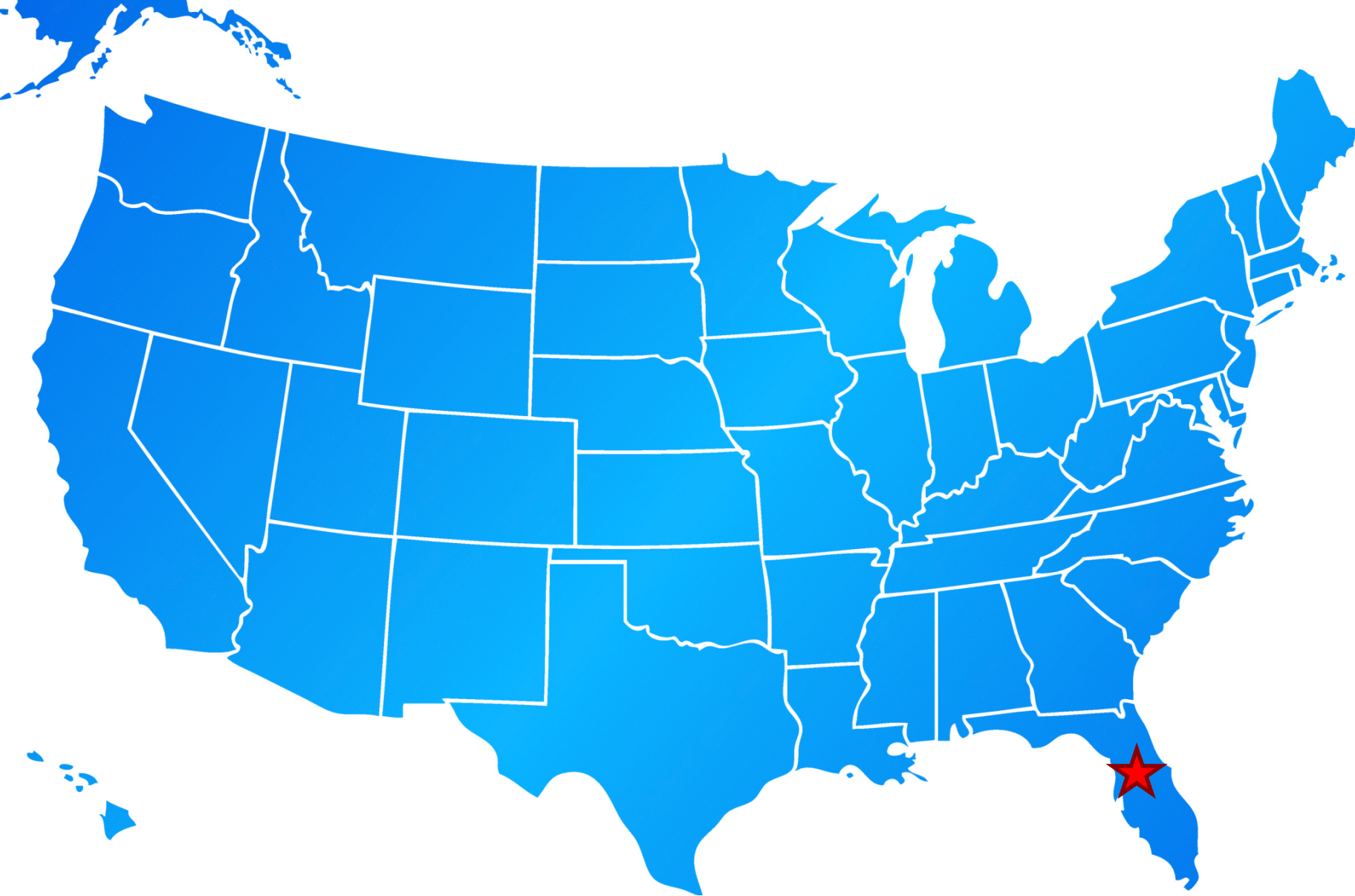
THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER



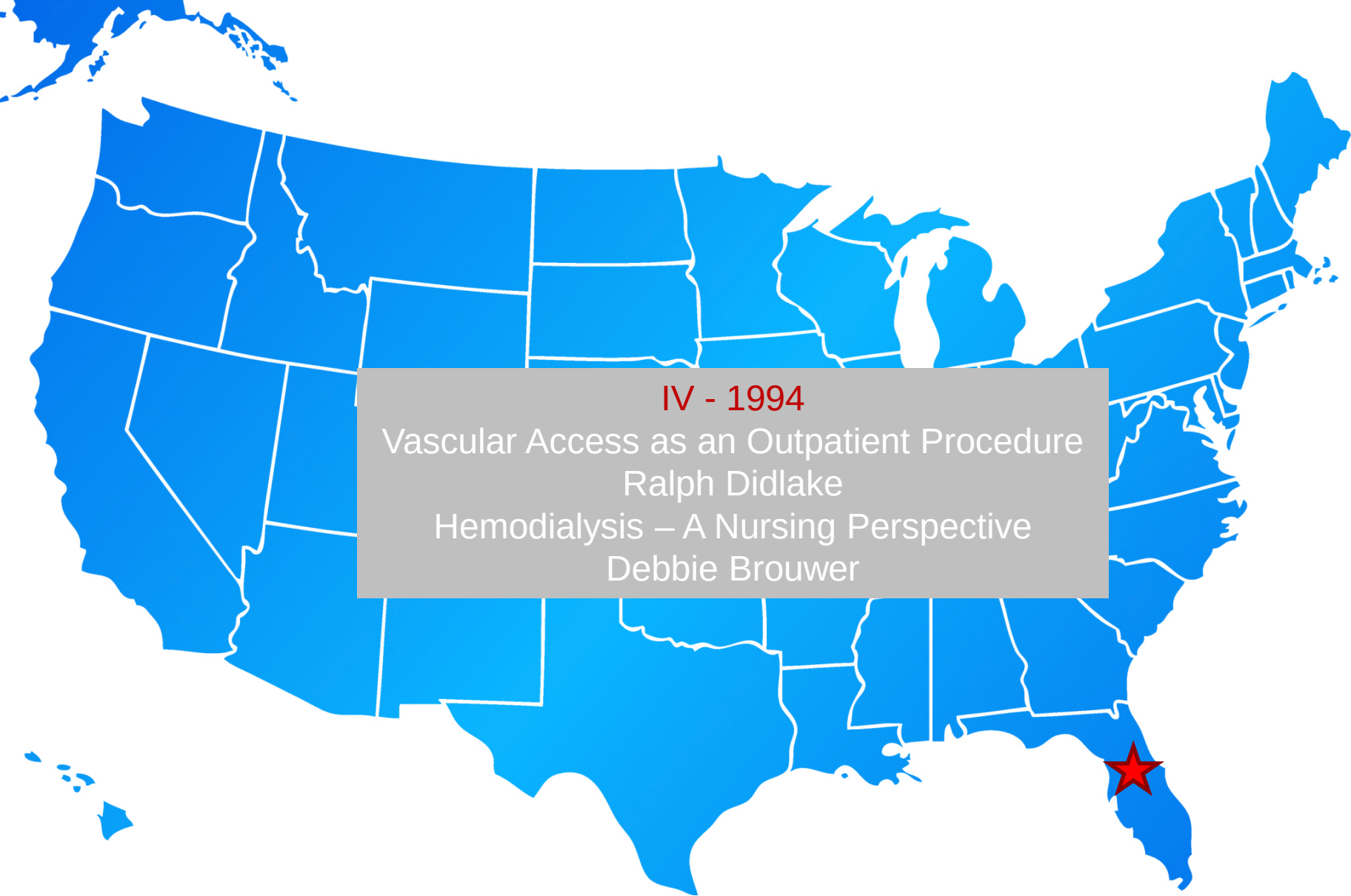
THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER



THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER



THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER



IV - 1994

Vascular Access as an Outpatient Procedure

Ralph Didlake

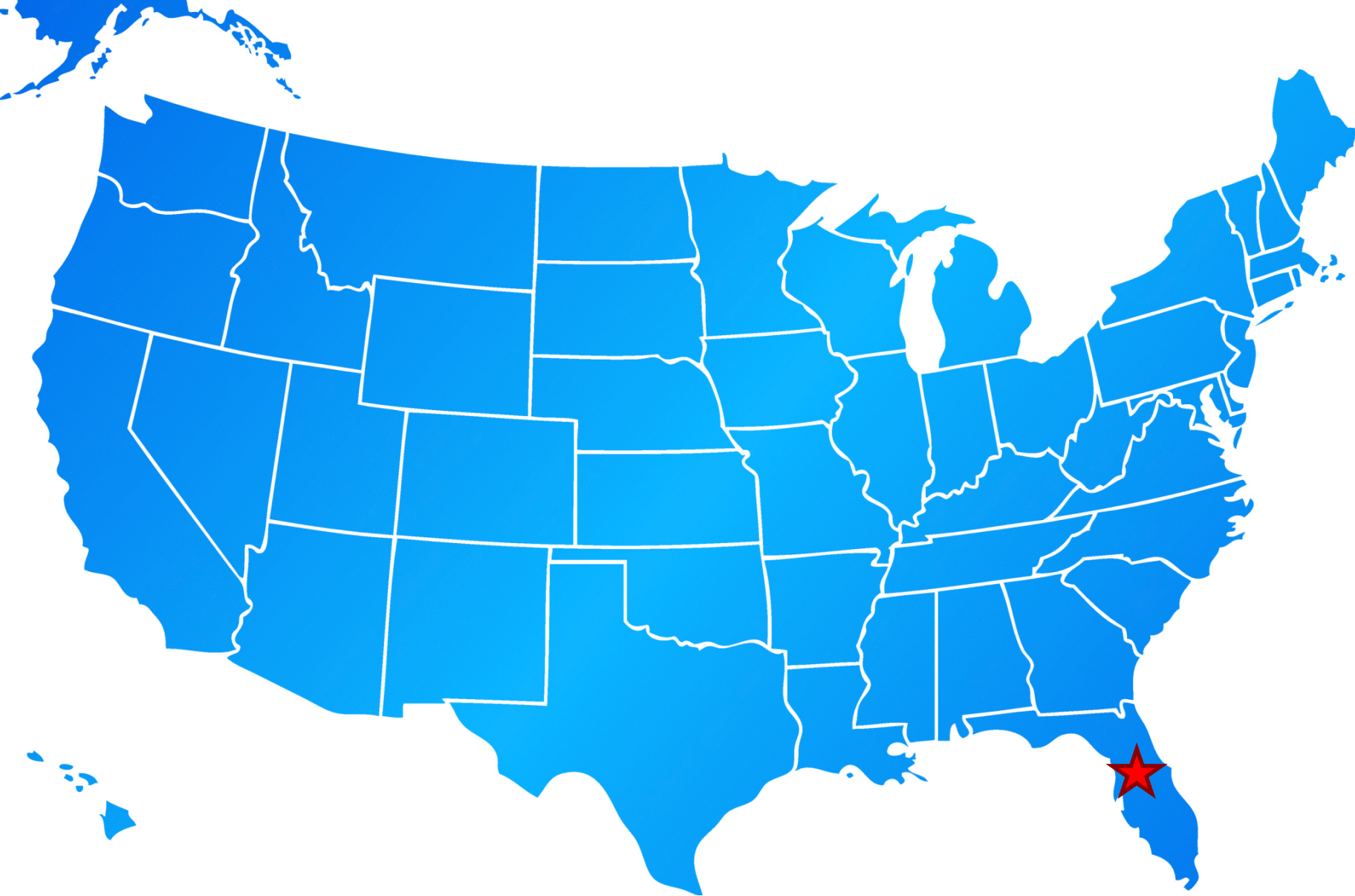
Hemodialysis – A Nursing Perspective

Debbie Brouwer

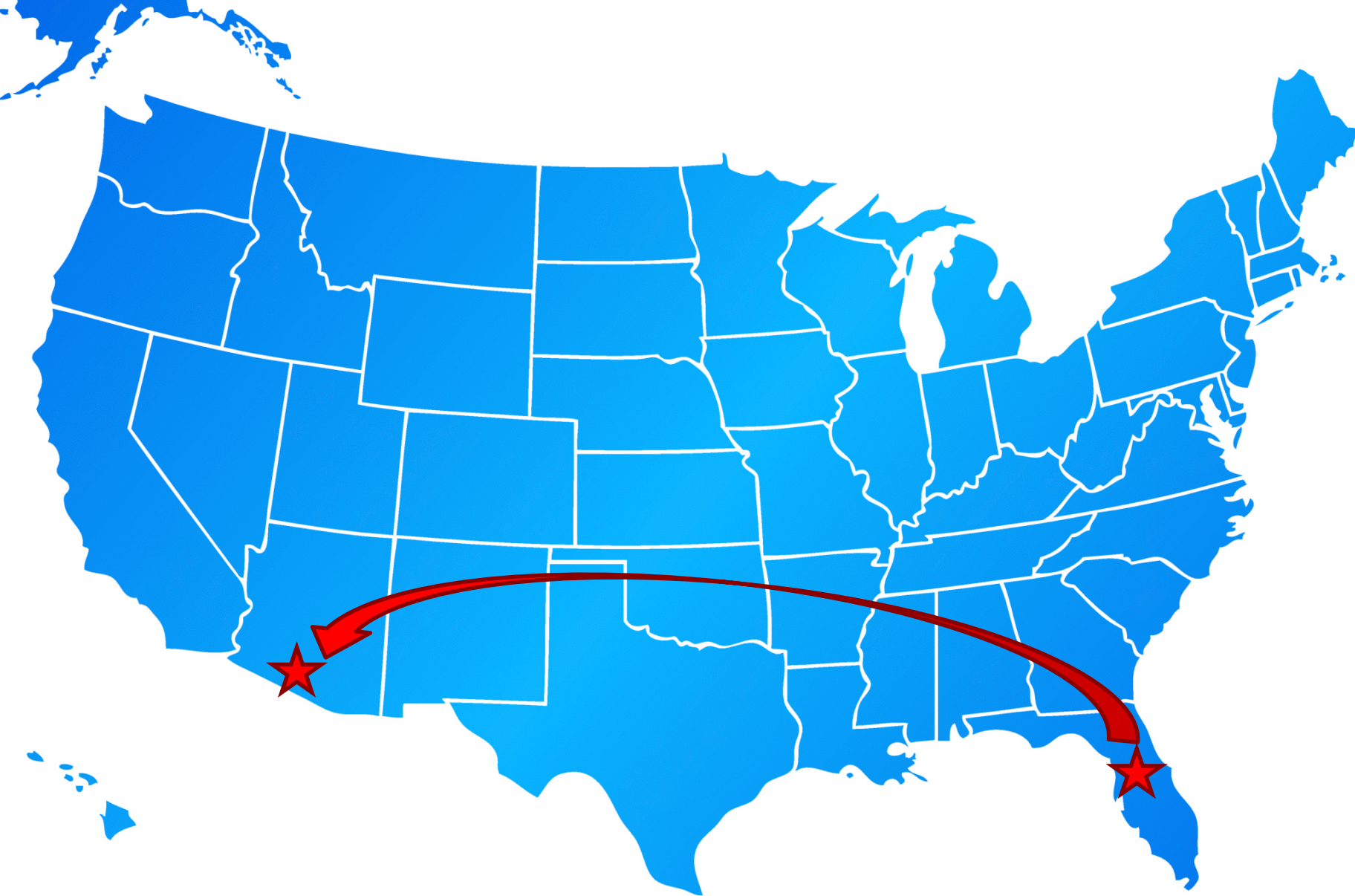


THE OHIO STATE UNIVERSITY

WEXNER MEDICAL CENTER



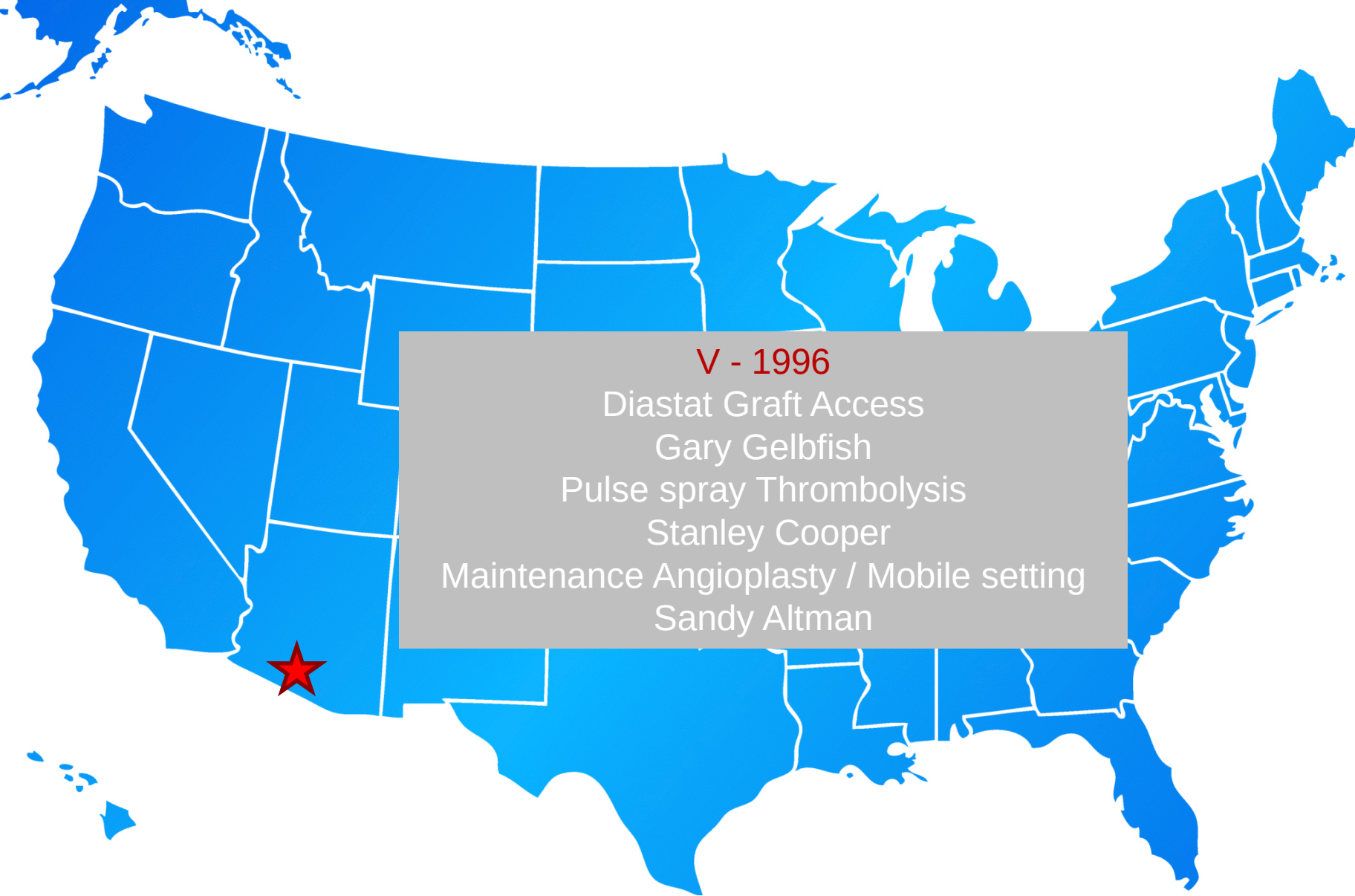
THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER



THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER



THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER



V - 1996

Diastat Graft Access

Gary Gelbfish

Pulse spray Thrombolysis

Stanley Cooper

Maintenance Angioplasty / Mobile setting

Sandy Altman



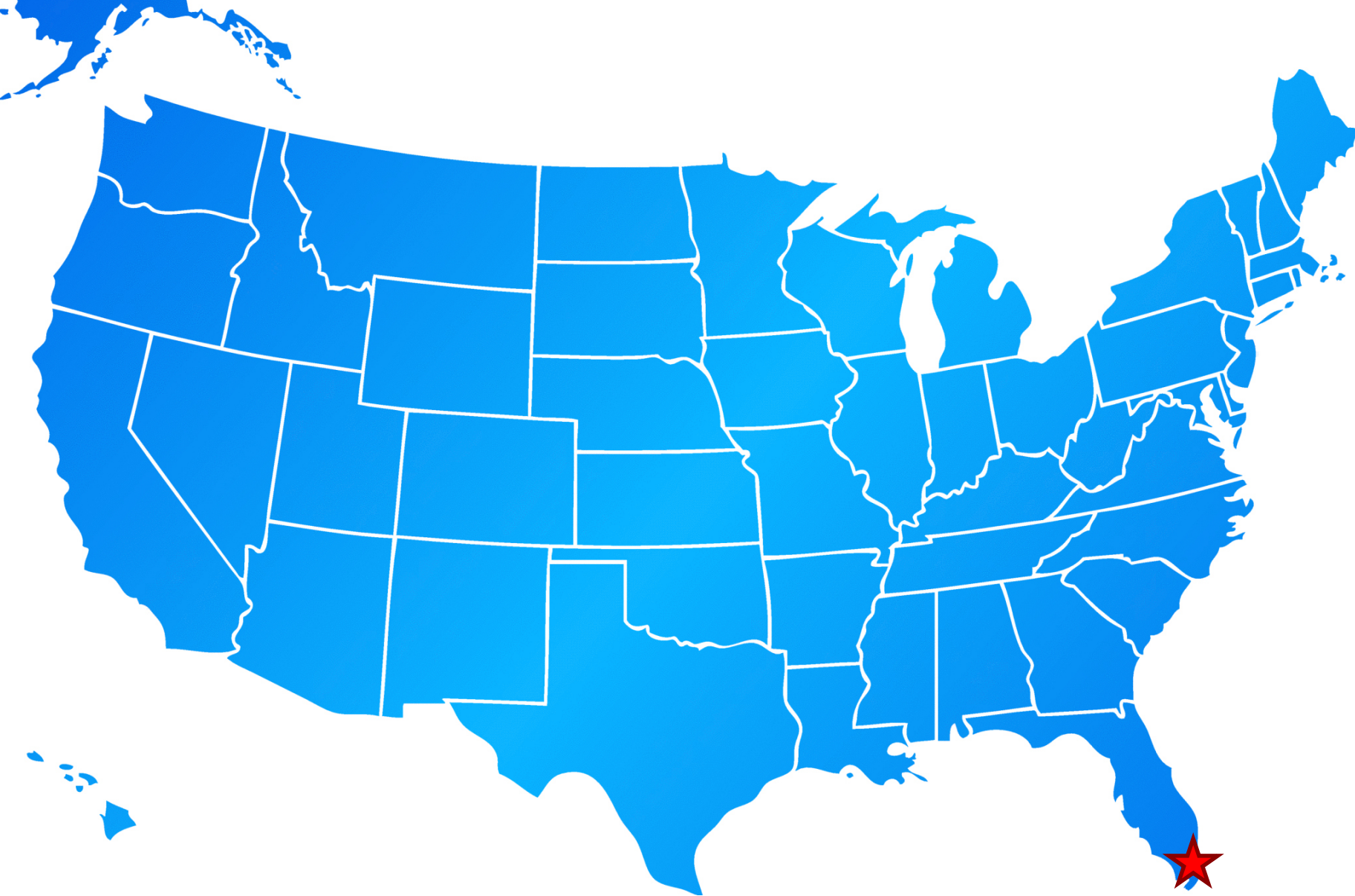
THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER



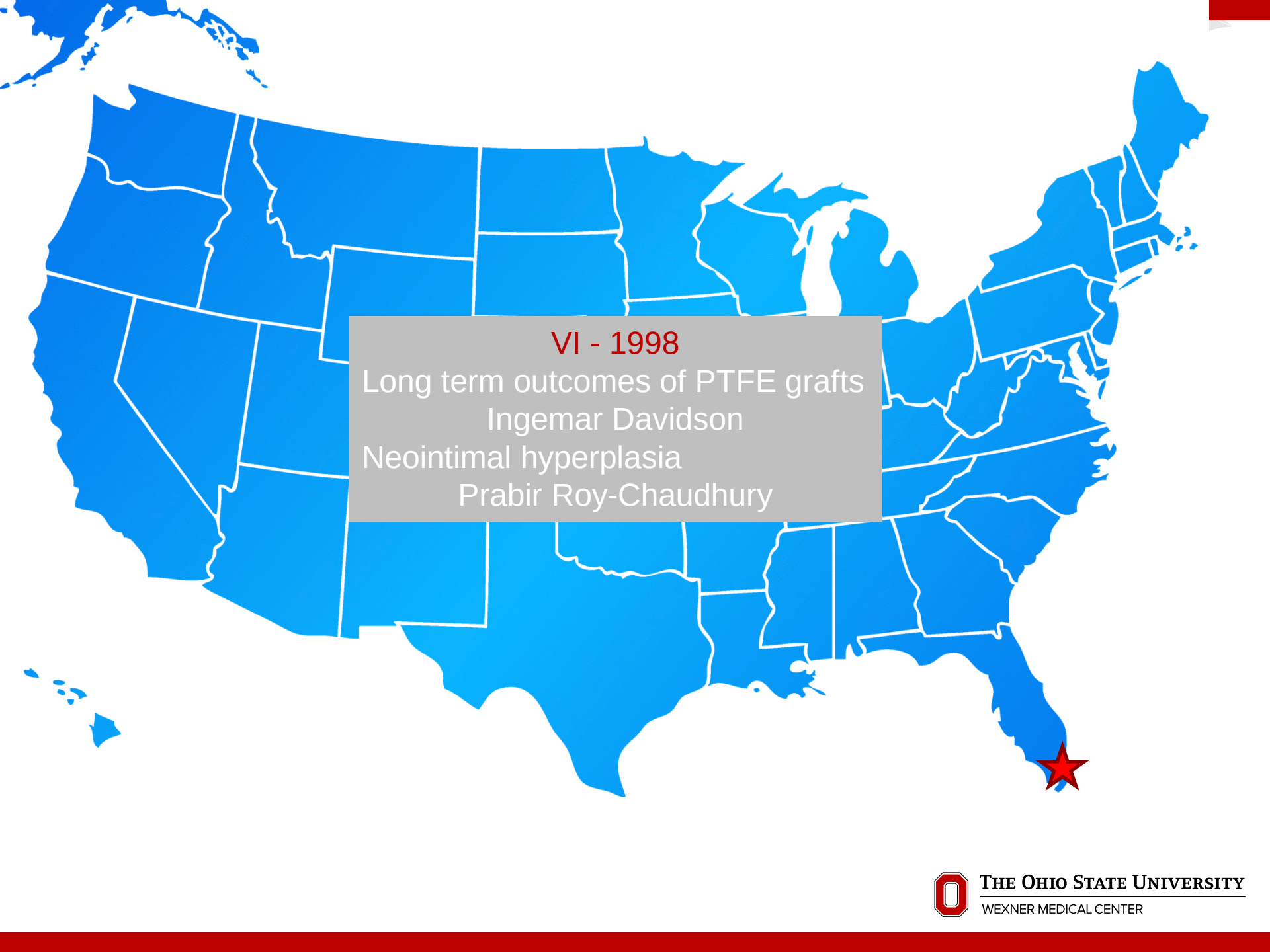
THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER



THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER



THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER

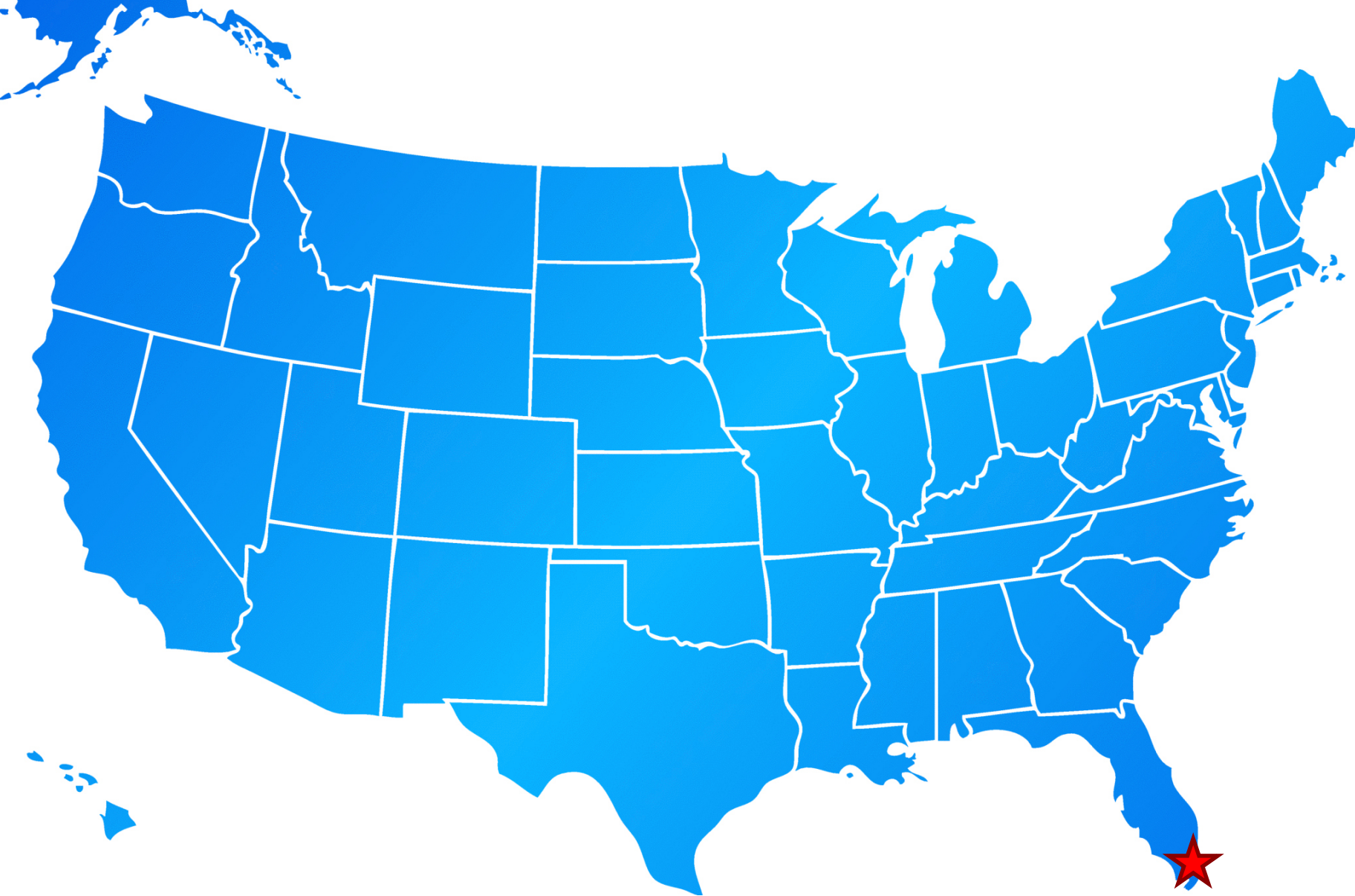
A map of the United States with all states outlined in white. The map is filled with a solid blue color. A red five-pointed star is located in the state of Florida, specifically in the southern part of the state.

VI - 1998

Long term outcomes of PTFE grafts
Ingemar Davidson
Neointimal hyperplasia
Prabir Roy-Chaudhury



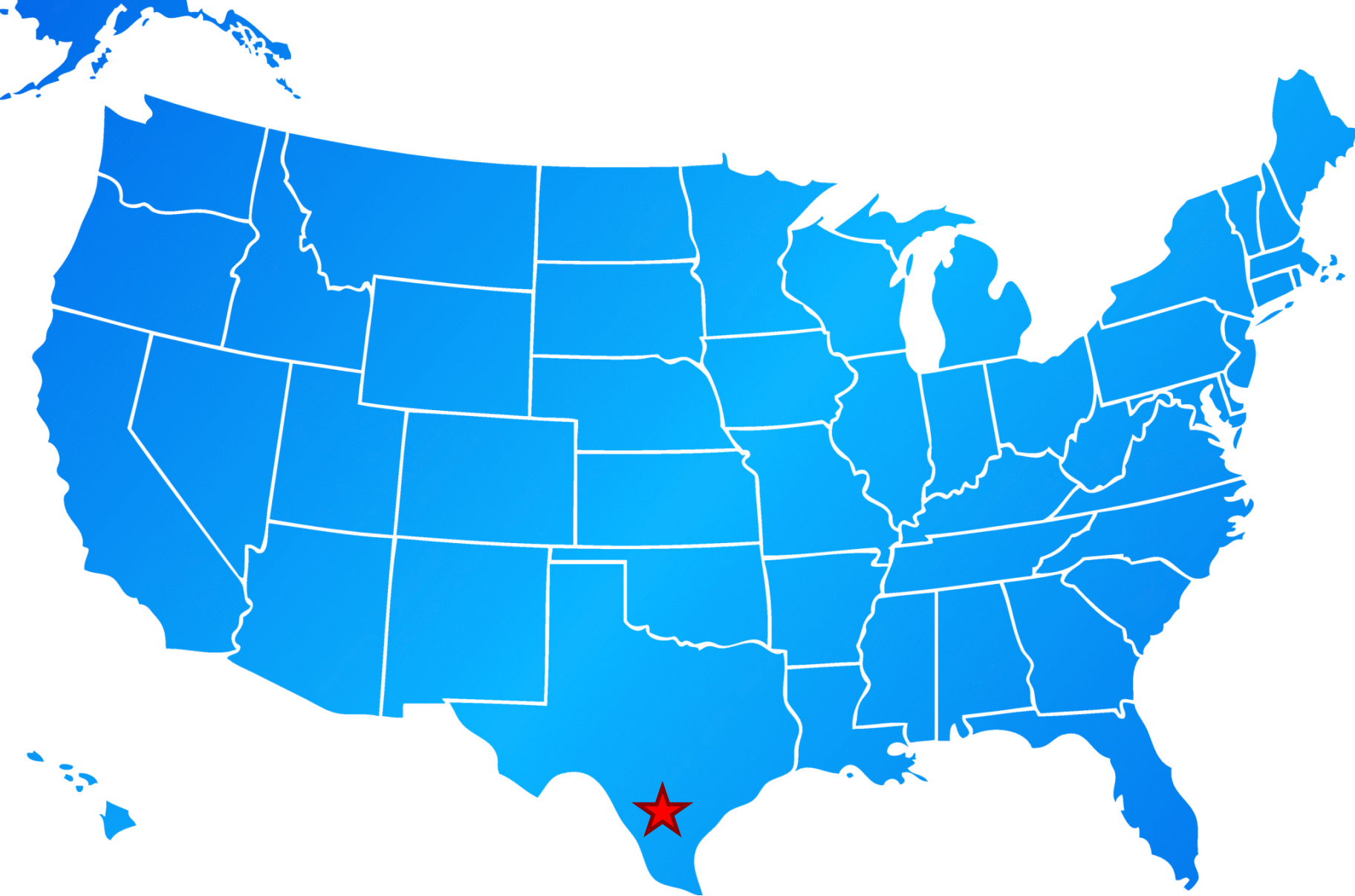
THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER



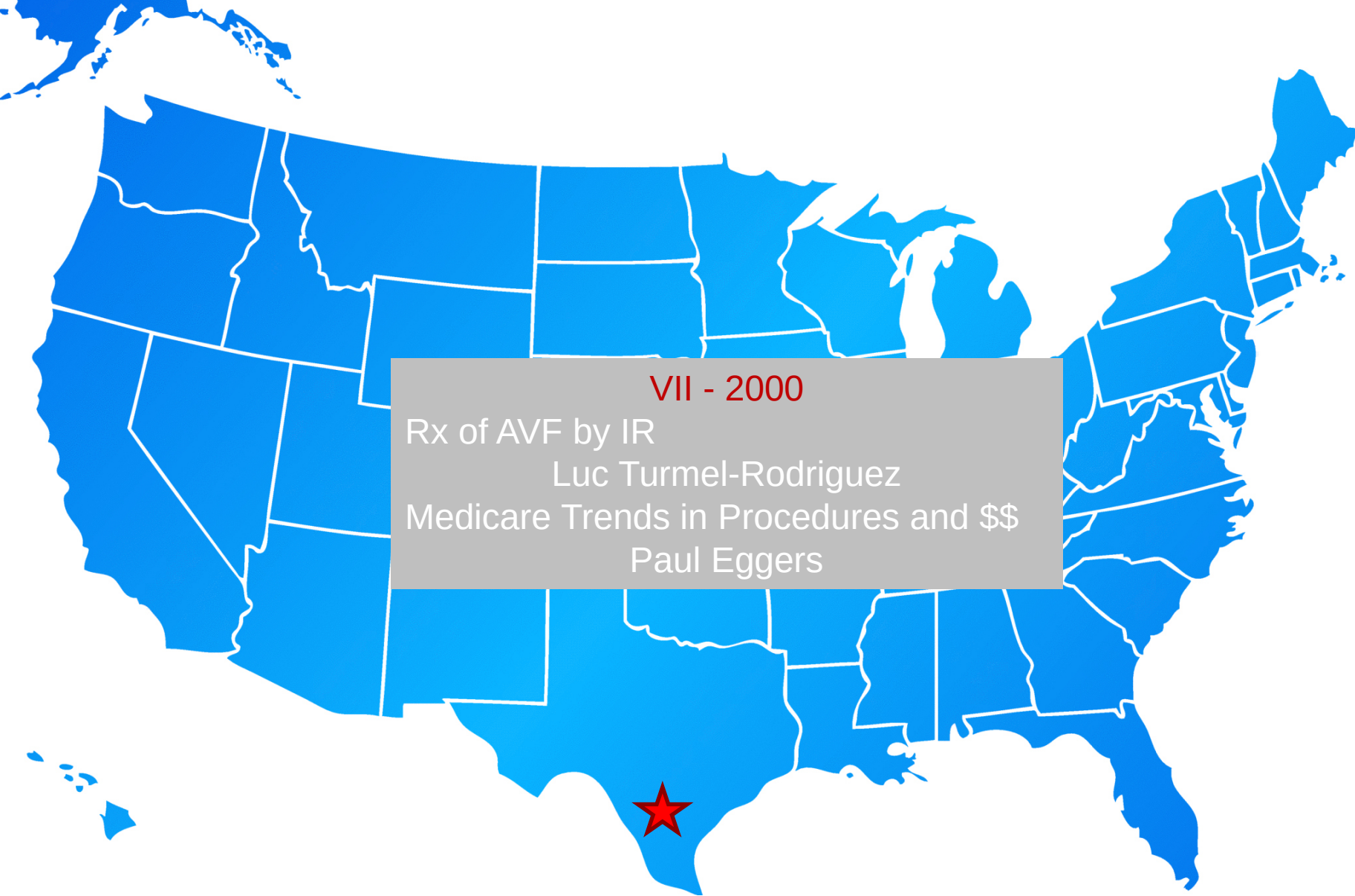
THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER



THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER



THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER



VII - 2000

Rx of AVF by IR

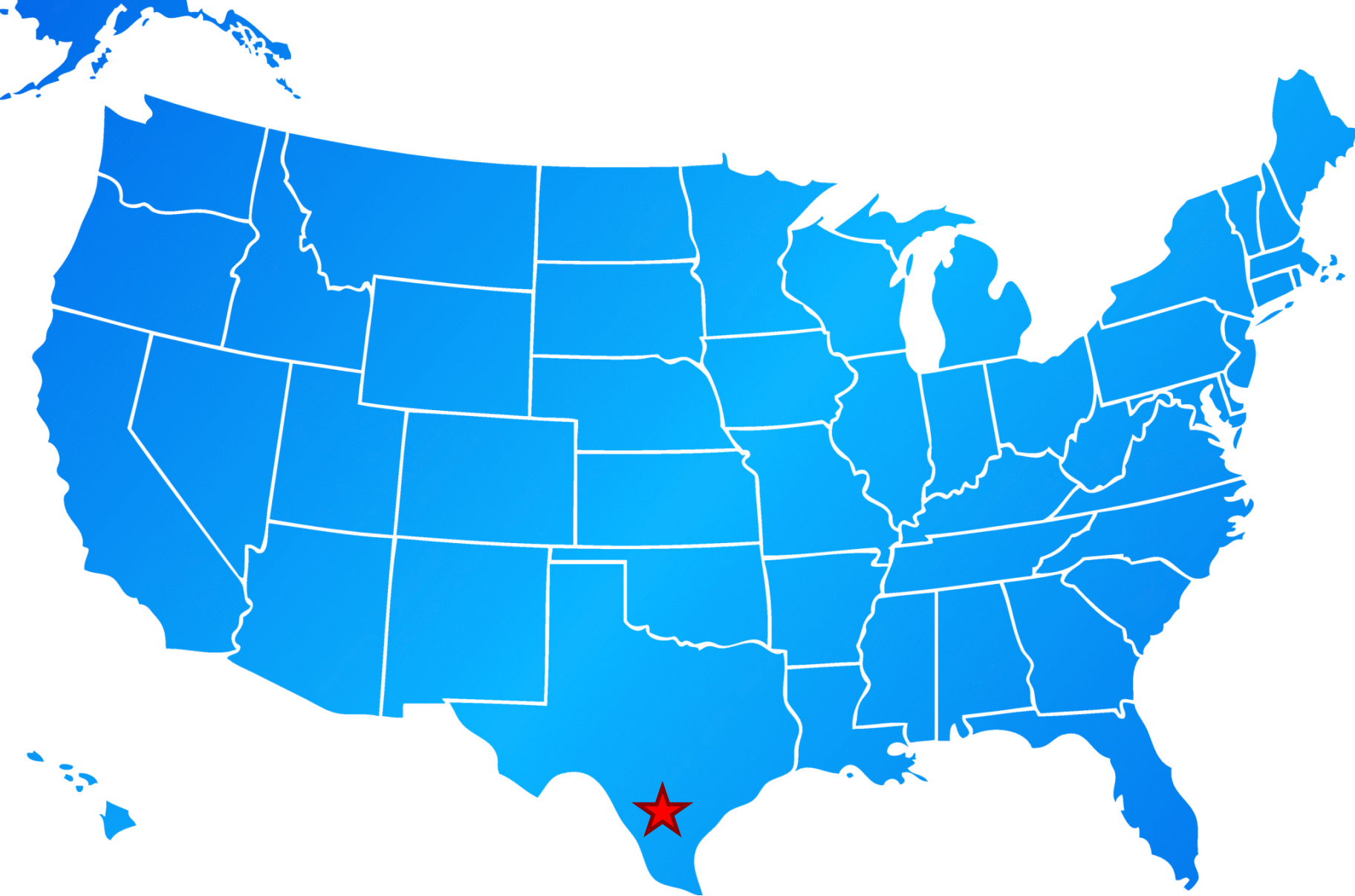
Luc Turmel-Rodriguez

Medicare Trends in Procedures and \$\$

Paul Eggers



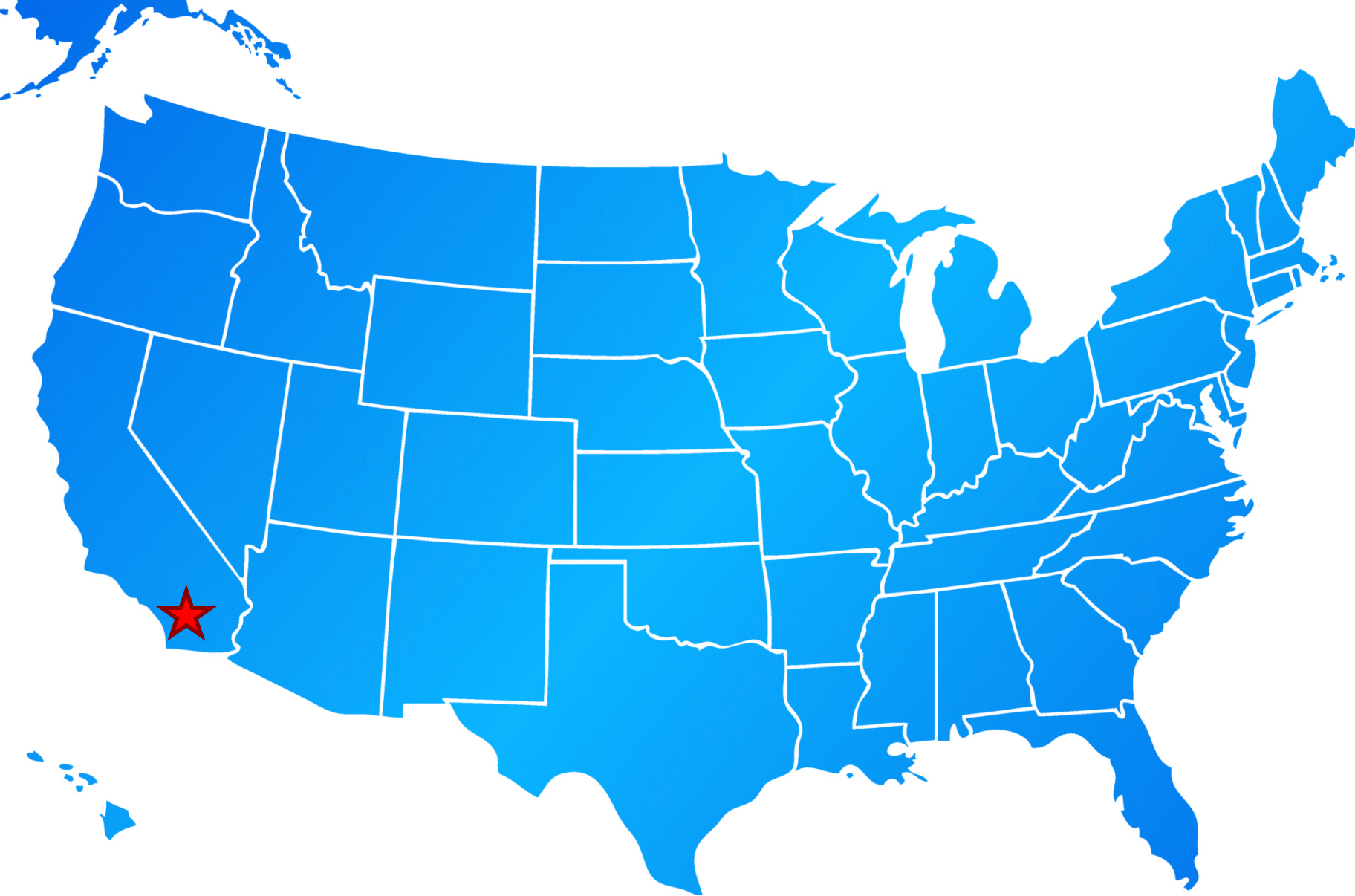
THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER



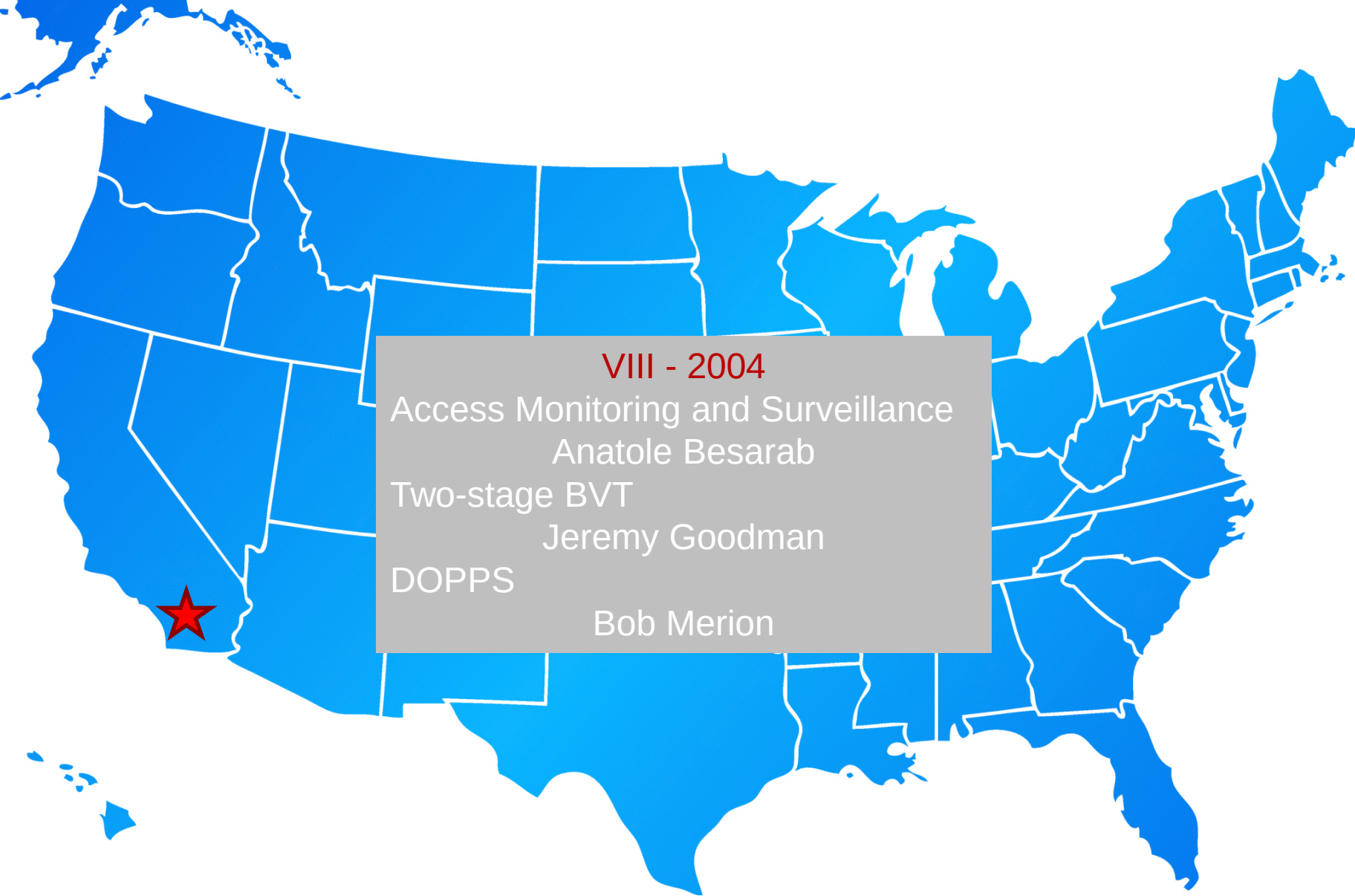
THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER



THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER



THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER



VIII - 2004

Access Monitoring and Surveillance

Anatole Besarab

Two-stage BVT

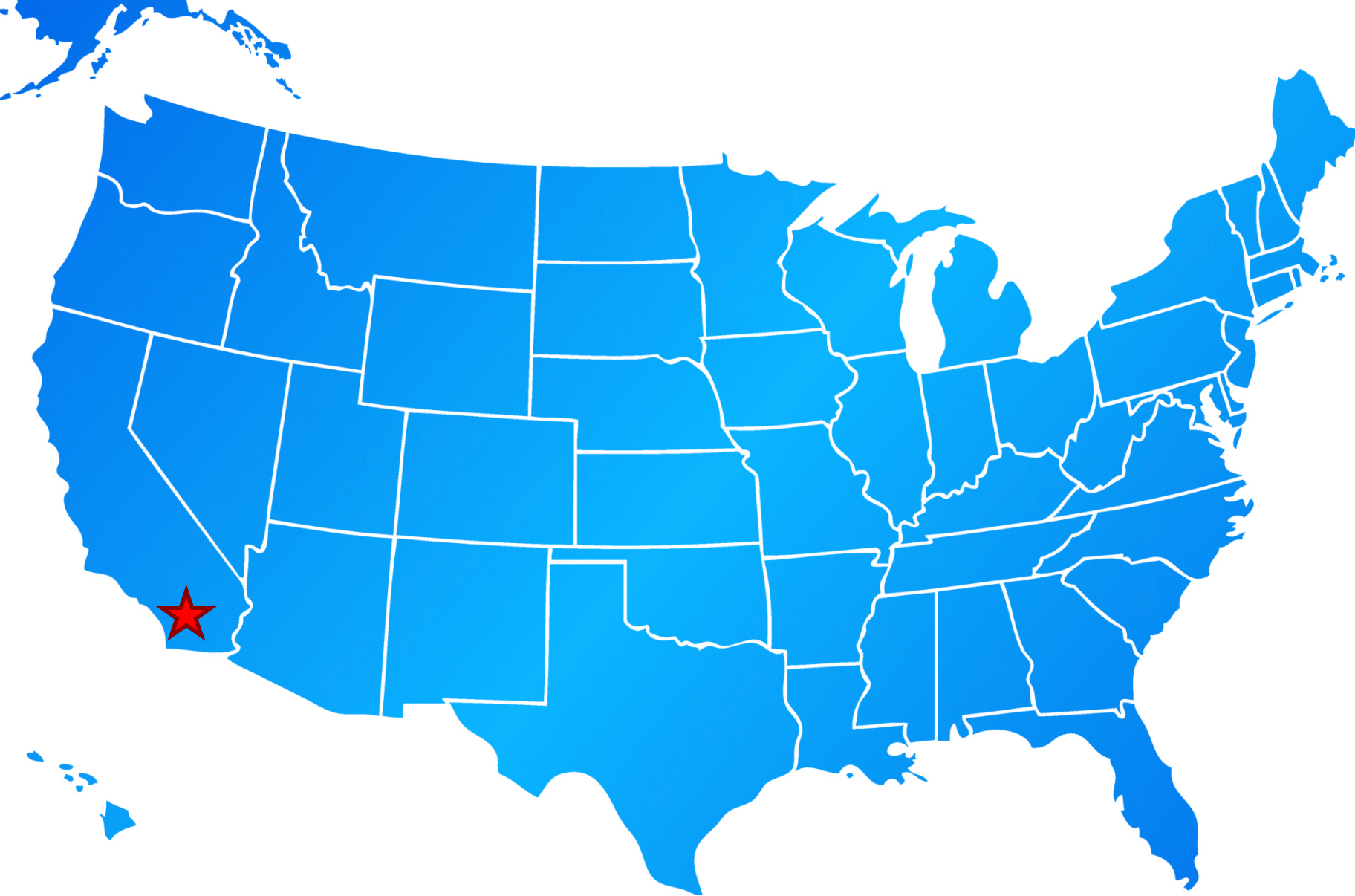
Jeremy Goodman

DOPPS

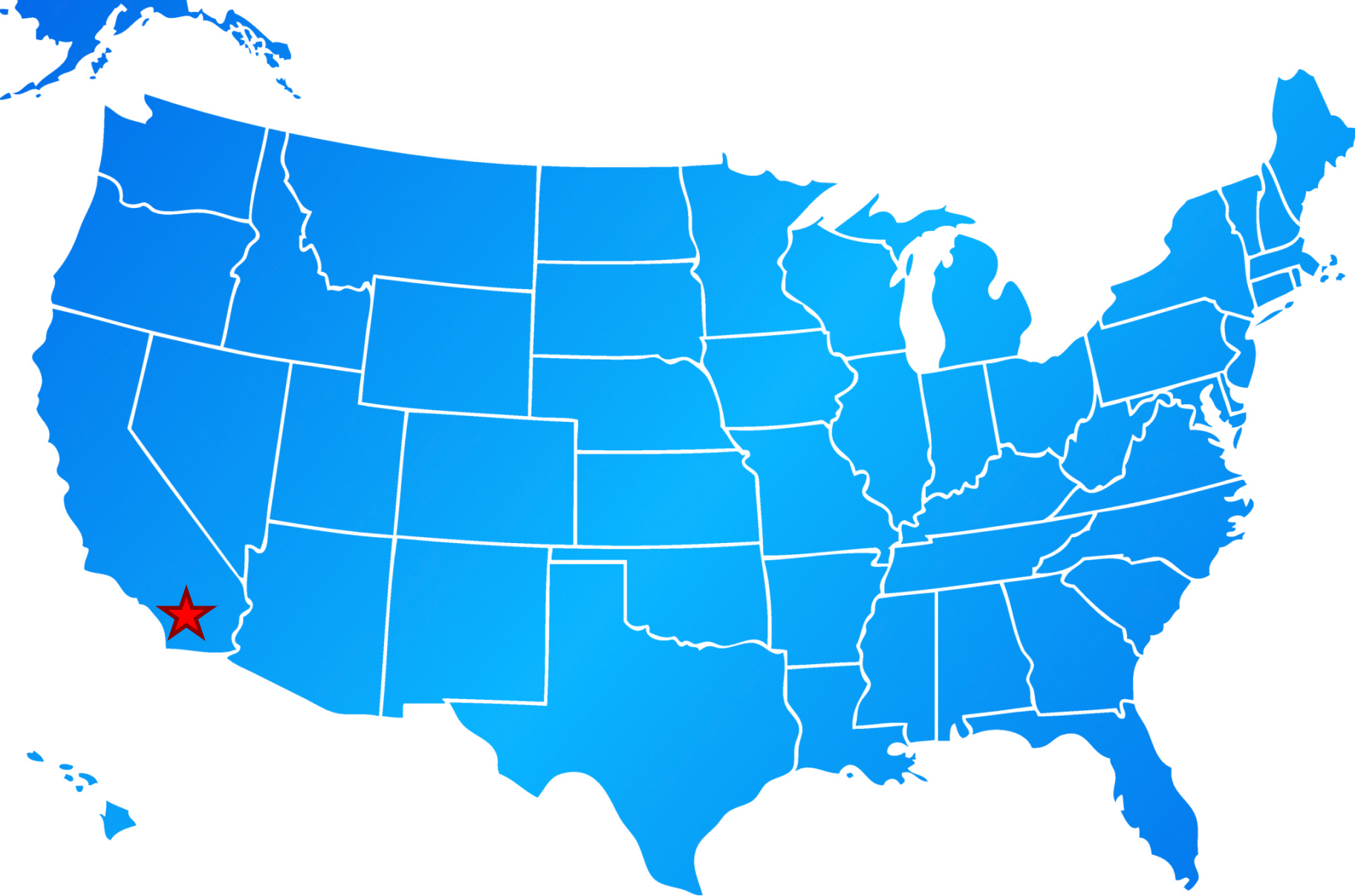
Bob Merion



THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER



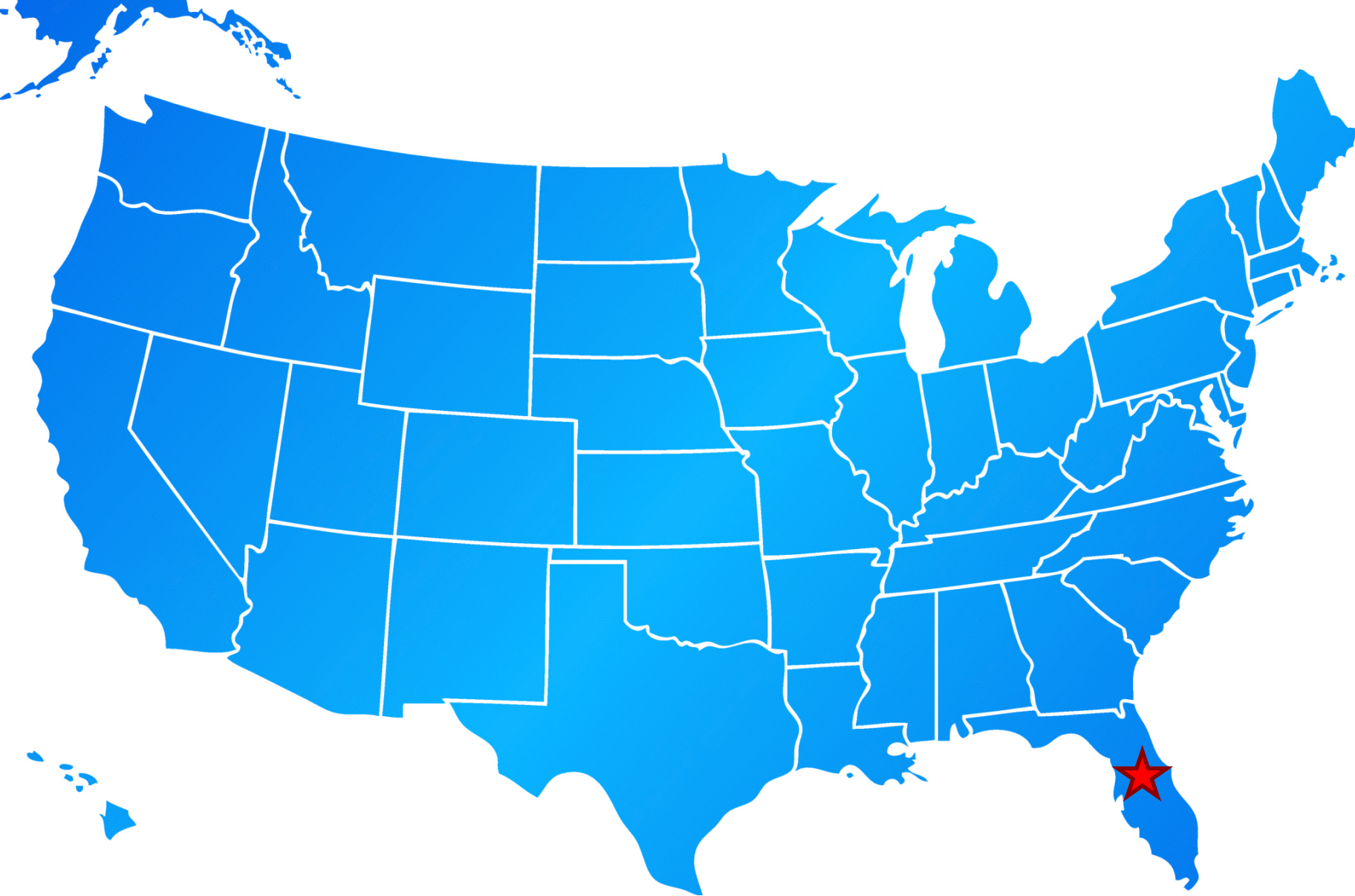
THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER



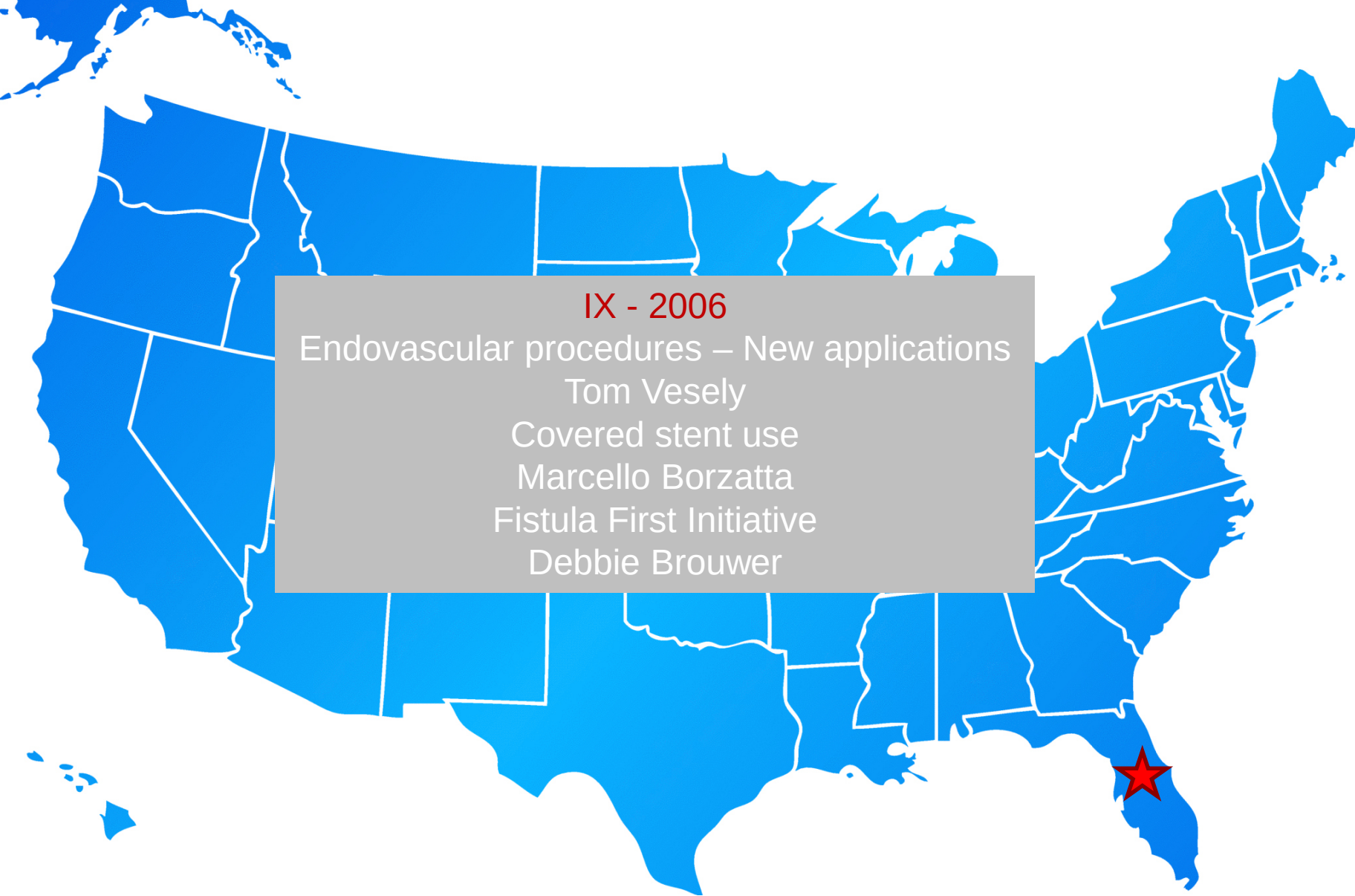
THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER



THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER



THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER



IX - 2006

Endovascular procedures – New applications

Tom Vesely

Covered stent use

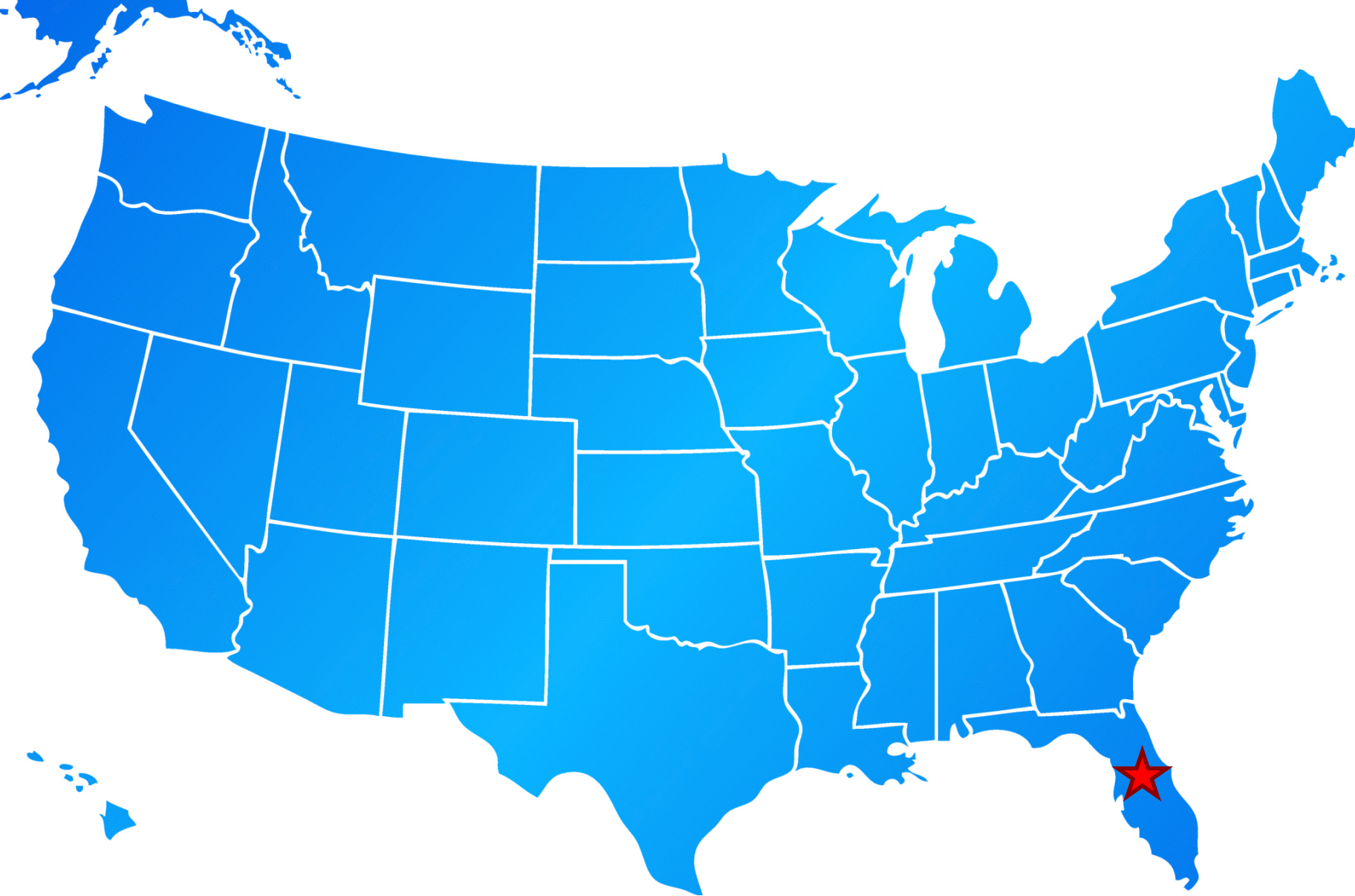
Marcello Borzatta

Fistula First Initiative

Debbie Brouwer



THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER



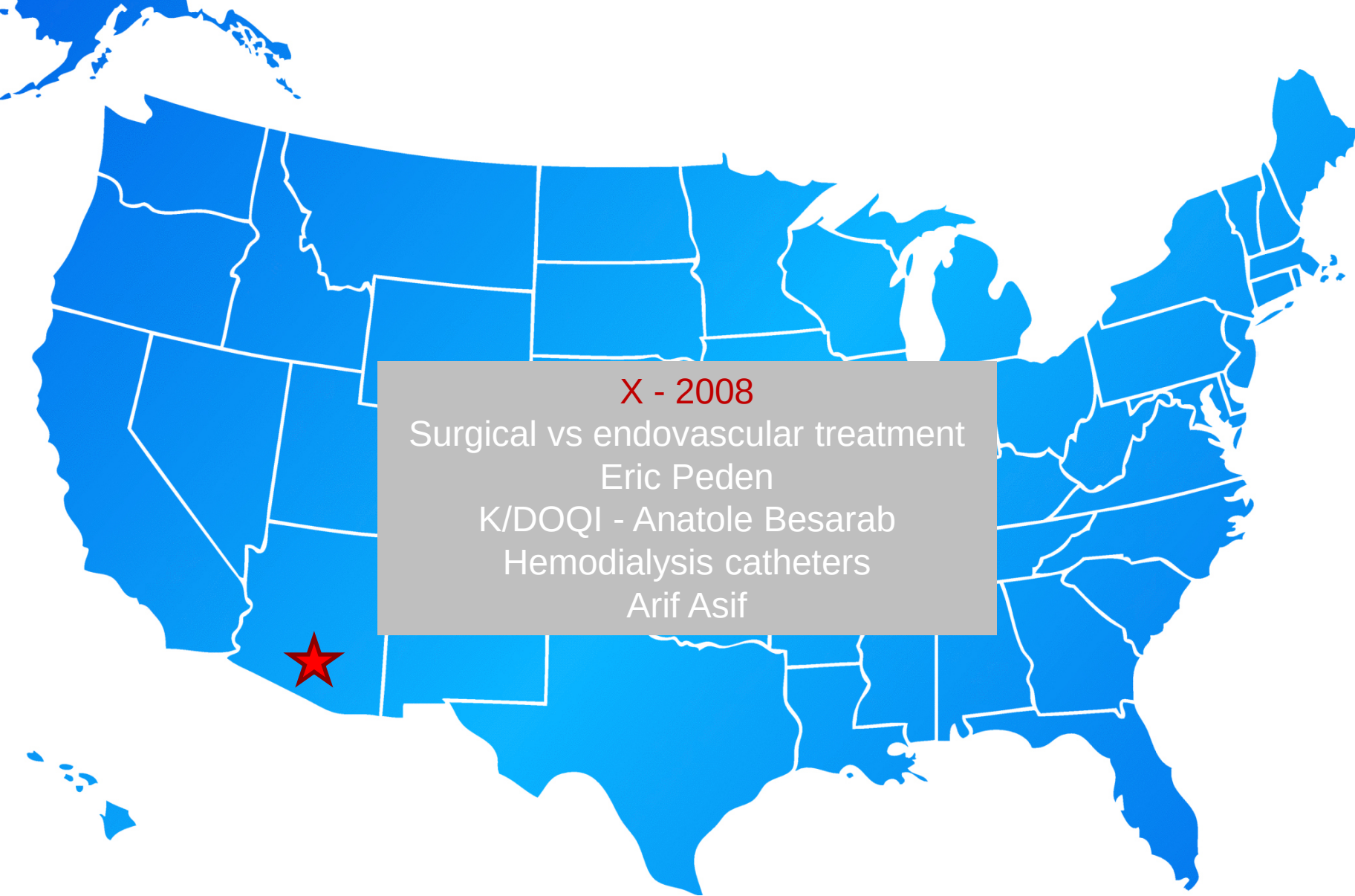
THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER



THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER



THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER



X - 2008

Surgical vs endovascular treatment

Eric Peden

K/DOQI - Anatole Besarab

Hemodialysis catheters

Arif Asif

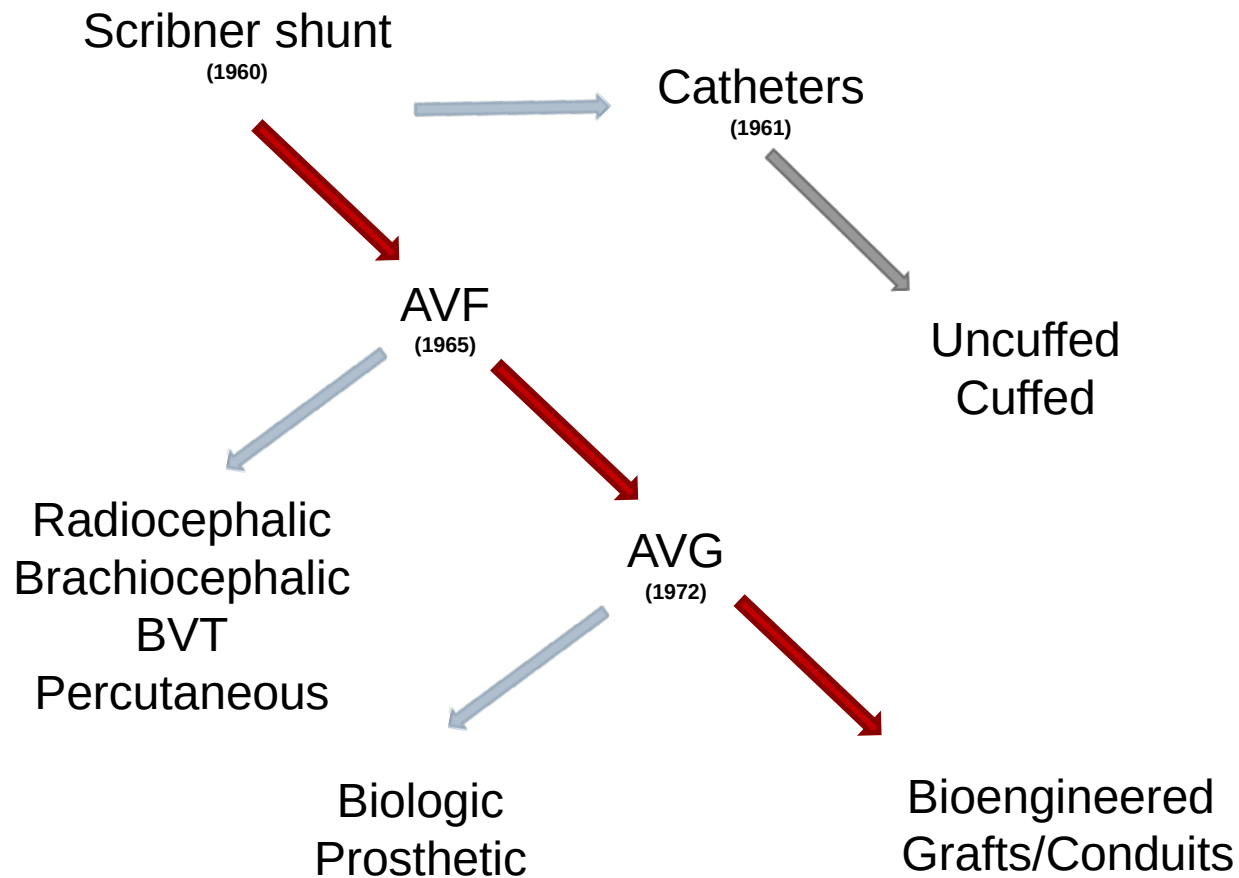


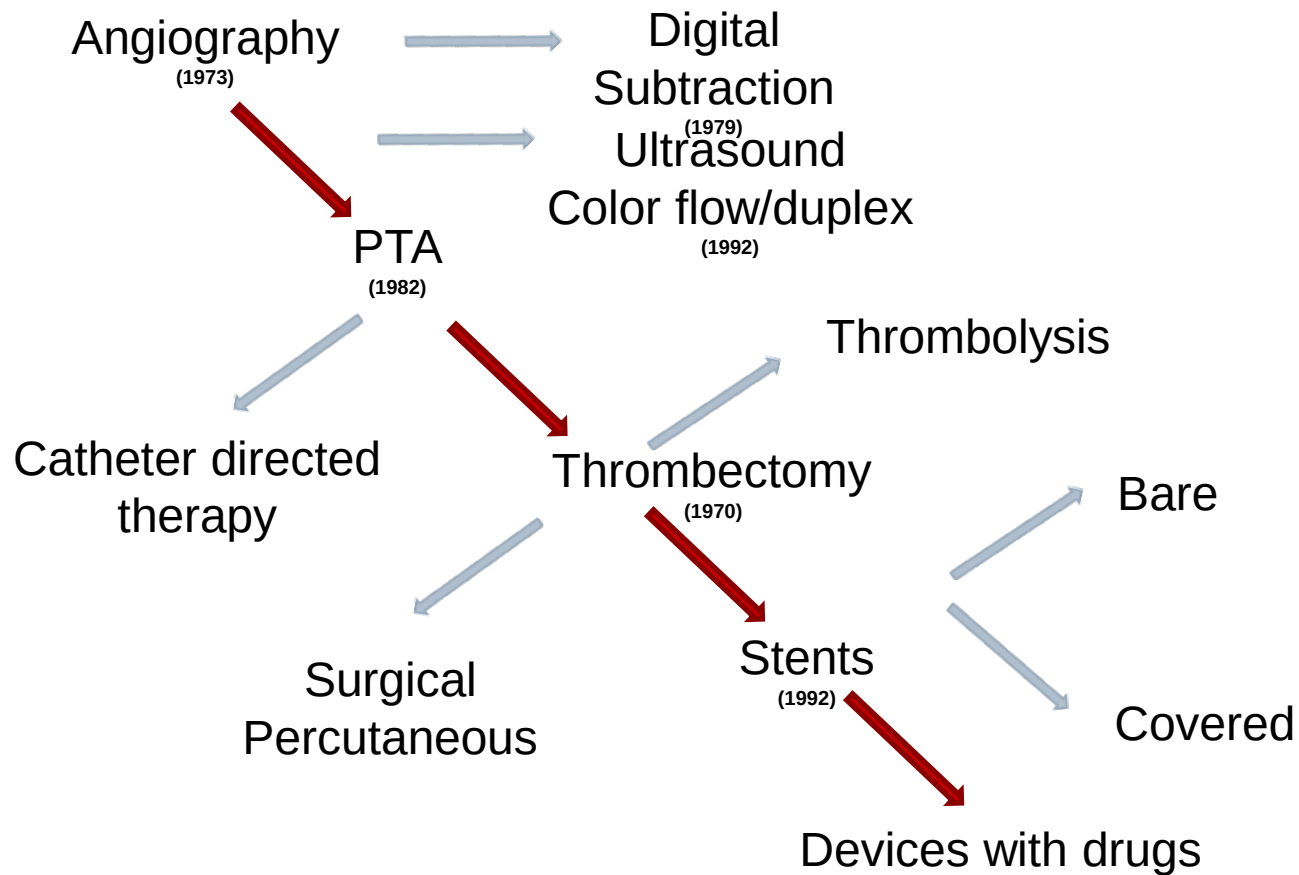
THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER

Vascular Access for Hemodialysis

- These meetings were a little like a one man band
- A number of prominent individuals were interested in starting a society, where many could buy into meeting and topics
- VASA was created, first President Fred Schild
- Only multidisciplinary vascular access society in the Americas
- Has provided a forum to share our knowledge and results in order to improve outcomes for our patients







The Players

- *Surgeons - initially the creators and innovators of vascular access procedures, now provide wide services*
- *Radiologists – Transitioned from providing information*
 - *Technical services*
 - *Caregiver - evaluation, study, intervention, follow-up*
- *Nephrologists – already were caregivers*
 - *Integrated knowledge of disease process and dialysis*
 - *Understood process and needs*
 - *Transitioned to access providers with diagnosis, therapy, even creators*



The Players

- *Nurses/Technicians – had intimate day-to-day knowledge of process and problems*
- *First line evaluators of dysfunction*
- *Expert cannulators*
- *Access Coordinator – manages repository of patients, interface with all other providers and patients, handles timeline of care, data management*
- *Commercial partners – works with clinicians to develop new devices and techniques*





Observations / Lessons

- *Come a long way in how we report our outcomes*
- *Clinical studies have helped us understand successes and failures*
- *Initially retrospective with widely varying outcomes, frequently defined by interest and level of expertise*
- *Studies have matured due to prospective approach, randomization, and improved data collection and follow-up (EMR?)*



Observations / Lessons

- *Pre-implant vascular mapping now routine*
- *Lessons about physical exam of fistula, healthy and dysfunctional, continue to help outcomes and can focus testing*
- *Concept of surveillance continues to be helpful*
- *Transition from inpatient services to full-availability outpatient facilities*





Observations / Lessons

- *Reporting initially in a wide variety of journals with a wide variety of readers*
- *VA for Hemodialysis I-X provided collected views*
- *Journal of Vascular Access created*
- *Meetings such as this infrequent initially, now more popular*



Lessons

- *Interventional/"non-invasive" approach has continued to be successful and is still maturing*
- *It takes a team to provide the optimal outcomes for our patients*
- *The future is ahead of us!!*

