Navigating Industry Funding for Urologic Research: Perspective from an Academic

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Disclosures

- I have multiple patents and patent applications on:
  - Regenerative approaches for Urogenital applications
  - Bladder and colon function monitoring devices & algorithms
- I have licensed Intellectual Property to **TDOC**, **SRS Medical**, and **Bright Uro**
- I have optioned Intellectual Property to **Theratome Bio**
- I have joint Intellectual Property with SRS Medical
- I currently have collaborative research with SRS Medical, Bright Uro, **Laborie, RebedaTek**, **Versameb**, and **Kashiv Pharmaceuticals**
- I have had collaborative research agreements with **Medtronic**, **Theratome Bio**, **Novartis**, **Acorda**, **Eli Lilly**, **TDOC**, **Beachtree**, **Fate**, **AMS**, and **Pharmacia-Upjohn**
- I have a consultant arrangement with Versameb

Damaser Research Programs

Neural regenerative approaches for stress urinary incontinence

- Cell-based therapies
- Noncellular therapies
- Recent focus on electrical stimulation

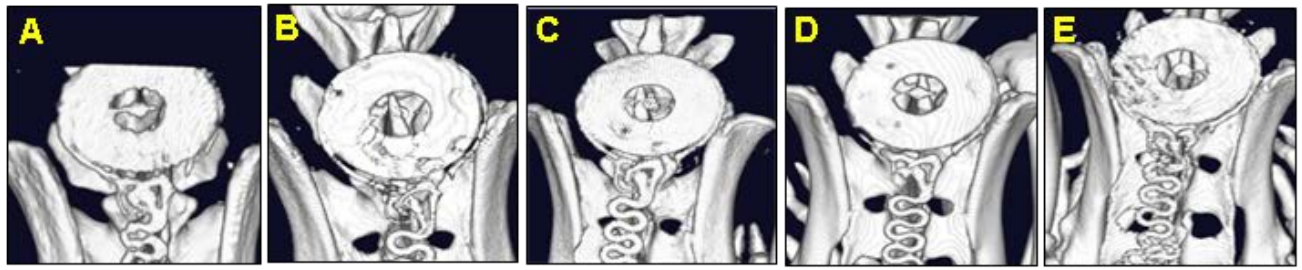


Fig. 3. *Example CT images demonstrating biodegradation of the flexible wireless biocompatible bioresorbable microelectrodes after implantation in female rats at day 0 just after implantation (**A**), as well as 1 (**B**), 2 (**C**), 3 (**D**) and 4 (**E**) weeks after implant with the cuff in the ischiorectal fossa. Imaging was focused on the head of the electrode system containing the antenna for wireless activation of the electrodes as this best demonstrated biodegradation. Future work will focus on imaging the entire electrode in vivo.*

This research has been funded by:

- NIH
- VA
- Corporate sponsored research

Maher et al. *Sci Rep*, 2024

Balog et al. *Int J Molec Sci*, 2023

Yuan et al. *Front Cell Neurosci*, 2022

Palacios et al. *Sci Rep*, 2021

Balog et al. *Experimental Neurology,* 2021

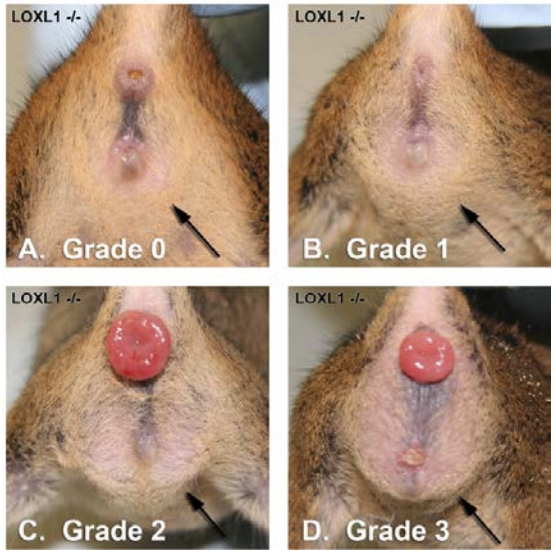
Yang et al. *Am J Physiol – Renal Physiol*, 2020

Damaser Research Programs

Elastin regenerative approaches for pelvic organ prolapse

- Mouse model of POP
- Quantifying elastin morphometry
- Testing elastogenic nanoparticles
- Testing elastogenic agents

This research has been funded by:
- NIH
- Foundations



Chi, et al. *Acta Biomaterialia*, 2022

Dahal et al. *Annals of BME,* 2021

Ferreira et al. *Acta Biomaterialia*, 2020

Lee et al. *Am J Physiol – Renal Physiol*, 2008

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https://brighturo.com

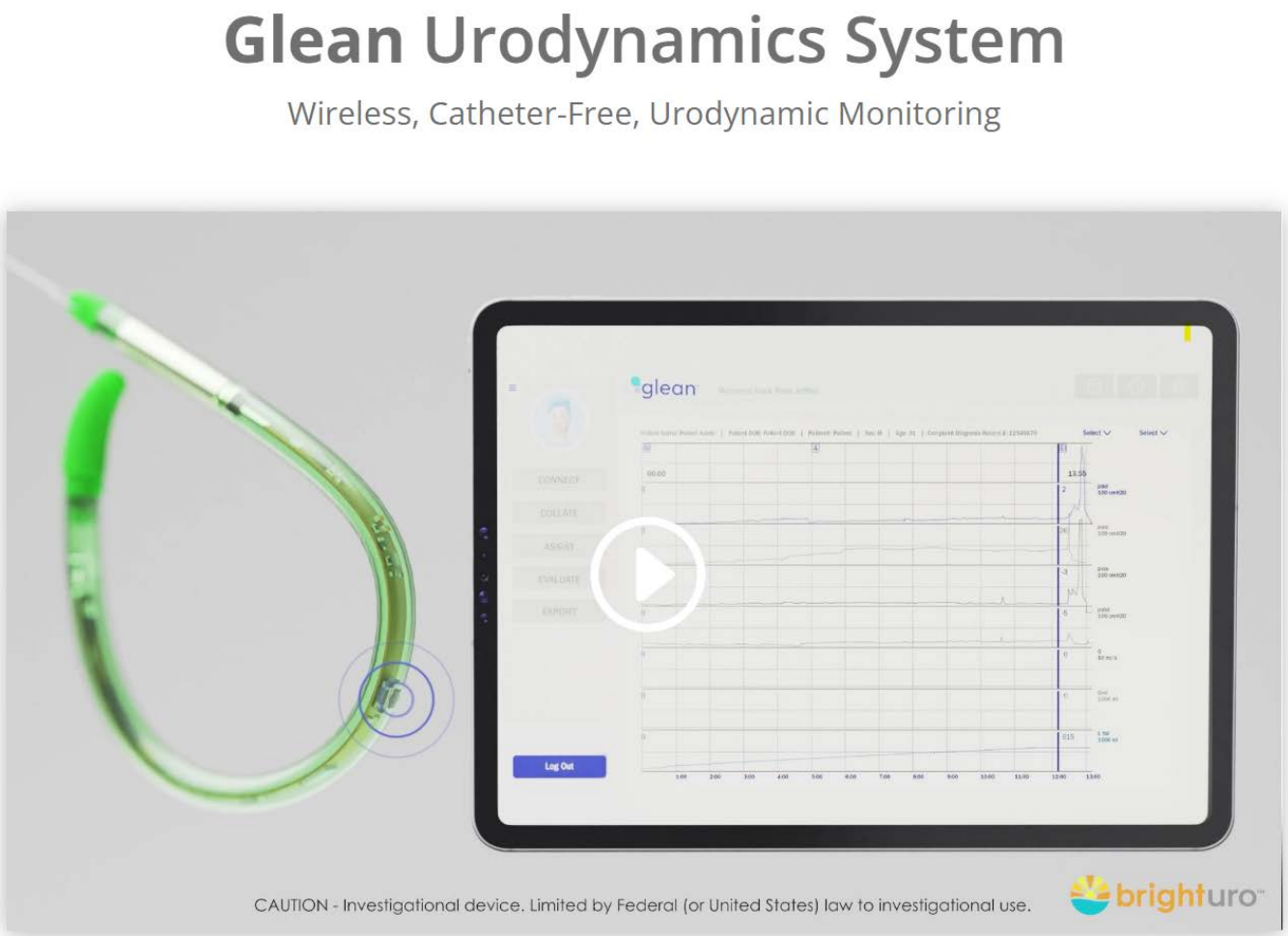

Figure
UroMo

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Majerus et al. *IEEE Sensors J*, 2024

Majerus et al. *IEEE TBCS*, 2023

Frainey et al. *J Urol*, 2023

Majerus et al. *J Eng in Medicine*, 2023

Majerus et al. *IEEE TNSRE*, 2021

More about me

- I work in 2 major hospitals for a reason: Cleveland Clinic & VA
- My career goal is to improve care of patients through my research
- Even my basic science research is highly translatable
- I educated myself about patents, regulatory environment, insurance reimbursement considerations, and more

- My PhD thesis was a lot of mathematical modeling in BME
- I then did 2 postdocs to learn animal models
- I then considered where I wanted to go next

Why Collaborate with Industry?

- This may be how I improve care for patients
- Funding can bridge between NIH, DOD grants or supplement them
- The application process is much more efficient than government funding
- Its interesting and a different view of the field
- Meet interesting people

Downsides to Industrial Collaborations

- They are usually on a short timeline
- They are very milestone driven
- MUST read the contract
- Can create conflict of interest for you – may need a conflict management plan
- MUST disclose relationships

Different Collaborative Relationships

- Nondisclosure Agreements/Confidential Disclosure Agreements (NDA/CDA)
- Material Transfer Agreements/Data Use Agreements
- Collaborative Research Agreements/Sponsored Research Agreements
- Collaborator on SBIR/STTR grants
- Joint Development Agreements
- Consulting/Advisory Board membership
- Licensing of Intellectual Property (patents, trademarks, know-how)

How to Collaborate with Industry

- Publish, publish, publish
- Non-negotiable is that I will publish the results of the research
- Go to clinical meetings and walk the exhibit hall – talk to people
- Get involved in relevant clinical societies
- Learn about nonconfidential disclosures vs confidential disclosures
- Learn the different structured relationship possibilities
- Learn at least some of the language of industry partners
- Learn at least some of the concerns of industry partners

Future of collaborating with Industry

- NIH funding is only getting harder to get
- More and more interest in translation of science to clinic
- Startups don’t have research facilities
- Big companies are even more risk averse and won’t buy small companies until the data is in
- Large companies less and less will license intellectual property directly from academia

Collaboration with industry will be necessary in the future

As it becomes more common, it will be easier and more standardized