

Mixed-Methods Evaluation of Georgia CTSA's Technology Transfer Process

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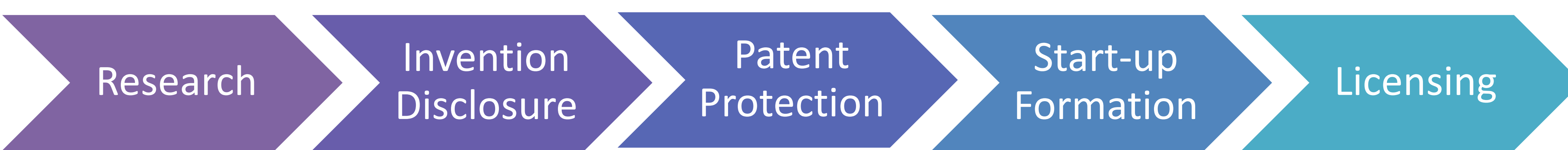
INTRODUCTION

The **Technology Transfer Process (TTP)** is critical to translating innovative research into protected intellectual property including **medical devices** as well as **methods for diagnosis, treatment, and prevention**.

Since 2007, the Georgia CTSA has supported clinical and translational research resulting in health-related **innovation disclosures, patents, and licensures**.

The objective of this study was to evaluate indicators associated with success along the TTP and to assess the scientific and health impact of Georgia CTSA support.

Overview of the TTP:



METHODS

- A mixed-method approach was used to assess the TTP using Georgia CTSA-supported invention disclosures using data starting from 2017 to January 2019.
- Data was gathered on disclosures supported by the Georgia CTSA, including: inventors, filing dates, program support, and number of invention disclosures.
- We evaluated each disclosure throughout the TTP including those that were abandoned, failed, and granted patents.

Part 1: Defining the TTP

- Environmental Scan of Georgia CTSA Disclosures

Part 2: Innovation Performance

- Determine Georgia CTSA Innovation Along the TTP

Part 3: Time Series Evaluation

- Determine Duration of Georgia CTSA Disclosures Along the TTP

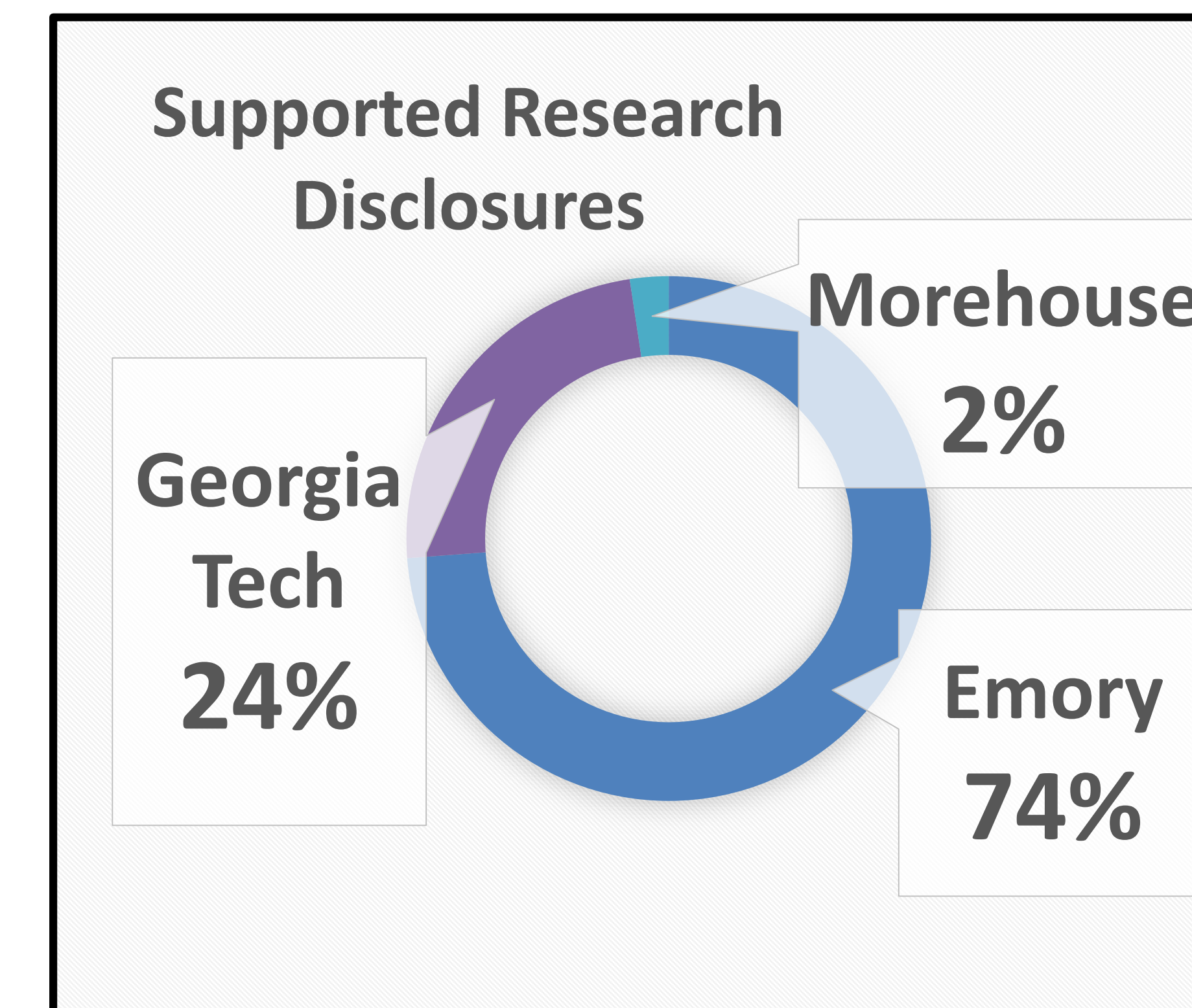
Part 4: Patent Impact

- Case Study of Georgia CTSA Commercialized Research

RESULTS PART 1: DEFINING THE TTP

Georgia CTSA-supported research led to:

- 42 Disclosures**
- 19 Patents**
- 9 Licenses**
- 1 Commercialized product**



RESULTS PART 3: TIME SERIES EVALUATION

- It takes **approximately three years** (38 months) for a Georgia CTSA-supported patent to move from application status to patent granted status, compared to the average estimated duration of **approximately two years** (United States Patent and Trademark Office)
- The TTP is a complicated process and consequently several patent applications (N=13) were abandoned, stalled, or are inactive. Preliminary findings indicate that administrative issues and failure to follow-up are the largest barriers to successful patenting.

RESULTS PART 4: PATENT IMPACT

Case study results are ongoing: Interviews have been scheduled for projects that have received licenses. 68% of patents granted were for methods and 32% are for medical devices.

RESULTS PART 2: INNOVATION PERFORMANCE

- Patent data was analyzed using an established metric that **determines innovation performance**.
- Georgia CTSA and Emory University **scores were ranked** using the benchmarks established by the Association of University Technology Managers (AUTM).
- Georgia CTSA innovation performance **ranked within in the top 25% and top 50% of AUTM institutions** for the first two steps of the TTP.

| Patent Innovation Performance (2007-2017) | | | | | |
|---|--------------------------------|--------------------|----------------------|-------------|--------------------|
| Patent Step | Formula | Georgia CTSA Score | Georgia CTSA Ranking | Emory Score | Emory Ranking |
| Research ➔ Disclosure | expenditure/ disclosure | 1,690,088 | Within Top 25% | 2,514,008 | Not Within Top 50% |
| Disclosure ➔ Patents | new patent apps/ disclosure | 0.74 | Within Top 50% | 0.73 | Within Top 50% |
| Patents ➔ Start Ups | start ups/ new patent apps | 0.06 | Not Within Top 50% | 0.03 | Not Within Top 50% |
| Patents ➔ Licenses | licenses/ issued patents | 0.47 | Not Within Top 50% | 1.71 | Within Top 50% |

CONCLUSIONS

- Georgia CTSA-supported research is yielding a **robust body of patent-protected research**.
- Preliminary evidence suggests that Georgia CTSA-supported research results in **stronger innovation performance along the TTP** when compared to individual member institution-supported research.
- Translating research into a commercialized innovation is a **key factor in improving health in Georgia**.

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