

# Blood Flow Restriction Therapy in OT

## Brody Worl, OTDS

### Huntington University Doctor of Occupational Therapy Program

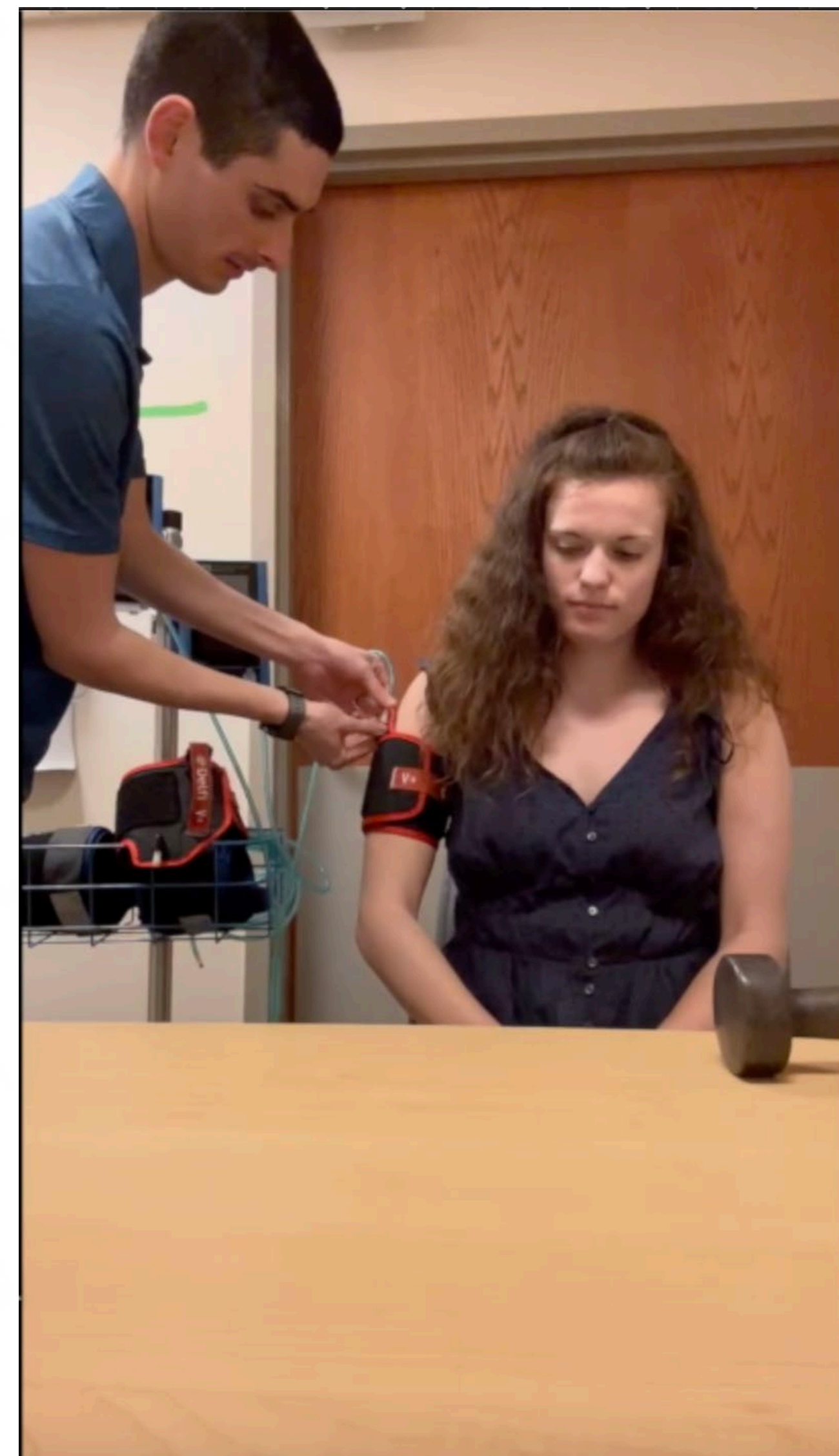
#### Project Description & Sites

**Areas of study:** 1) Clinical Practice 2) Advocacy

**Population:** OT practitioners, OT students, and individuals with upper extremity functional deficits

**Sites:** Huntington University OTD Campus (Fort Wayne location) and Parkview Randallia Outpatient Clinic

**Description:** My doctoral capstone focused on gaining advanced knowledge in blood flow restriction therapy (BFRT) and advocating for its use among current and future occupational therapy practitioners. Throughout my project, I made contributions through creating BFRT resources for Parkview Randallia Clinic, as well as educating Huntington OTD students and providing educational resources for current practicing OTs.



#### Needs Assessment | Literature Review

##### Needs assessment:

-I conducted a survey of OTs to gauge their current knowledge/use of BFRT in their practice.  
-Affecting approximately 30% of the general population, clients suffering from rotator cuff tendinopathies report a decreased quality of life with decreased range of motion, strength, functional limitations, and increased pain.

##### Literature Review:

-BFRT is the brief and intermittent occlusion of arterial and venous blood flow using a tourniquet while at rest or exercising.  
-Research suggests BFRT protocols lead to greater reductions in pain with activity, as well as improved self-perceived function scores.  
-Lack of overall research on BFRT from an OT perspective supports the need for this project in attempting to make BFRT a better-known OT intervention.

#### Christ | Scholarship | Service

**“Don’t forget to do good and to share what you have because God is pleased with these kinds of sacrifices.” Hebrews 13:16**

**Skill development in area of therapeutic practice to better serve the needs of a large population.**

#### Project Completion and Outcomes

**Outcome Measure 1:** In order to demonstrate an in-depth knowledge in the application of BFRT, the student created a practitioner fact sheet with case study applications as a learning tool on a platform accessible to practitioners pursuing this intervention approach.

**Related learning objectives:** Completion of a CEU course, completion of a data analysis based on survey sent to OTs, observation of 5 BFRT sessions with an OT.

**Outcome Measure 2:** In order to demonstrate an in-depth knowledge in advocacy skills, the student presented information on BFRT to practitioners in the community for the purposes of promoting BFRT to current and future OTs.

**Related learning objectives:** Creation of evidence-based educational PowerPoint.

#### Mission & Vision Statements

**Mission Statement:** To increase the quality of life and occupational engagement/performance in clients with a variety of musculoskeletal and neurological diagnoses through the incorporation of blood flow restriction therapy.

**Vision Statement:** To foster the development of advanced skill and knowledge in foundational BFRT protocols for future OT practice and CHT certification.

#### Deliverables

**Deliverable #1:** Creation/submission of practitioner fact sheet

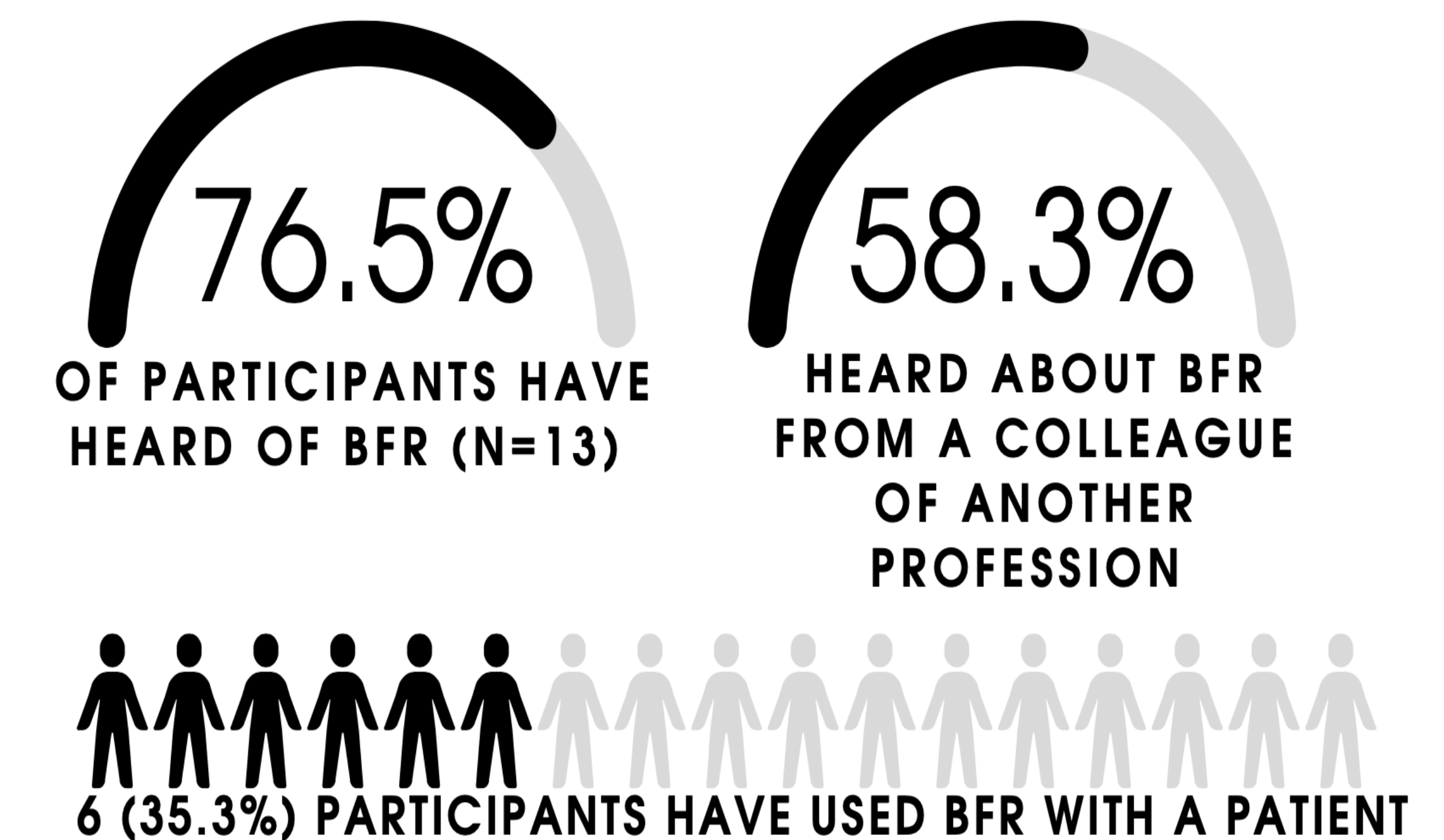
**Deliverable #2:** CEU certificate

**Deliverable #3:** Creation of data analysis info sheet

**Deliverable #4:** Creation of at least 2 case studies related to observed BFRT sessions

**Deliverable #5:** Signed presentation attendance sheet

**Deliverable #6:** Completed evidence-based BFRT PowerPoint



#### Future Implications for OT

**Impact on OT:** Recorded BFRT educational video, BFRT demo video, protocol “cheat sheet,” and case studies available to OT students/practitioners; possible journal publication outlining the need for BFRT in OT education and practice.

**Impact on my career:** My capstone reinforced my passion to specialize in orthopedics and pursue a CHT certification. During my project, I began to acquire specialized knowledge that I hope to continue to increase in the future.

**Student may be contacted at** worlb@huntington.edu or bworl24@gmail.com



#### KEY REFERENCES \*Full reference list and image reference list available upon request

Abat, F., Alfreidson, H., Cucchiari, M., Madry, H., Marmotti, A., Mouton, C., Oliveira, J. M., Pereira, H., Peretti, G. M., Romero-Rodriguez, D., Spang, C., Stephen, J., van Bergen, C., & de Girolamo, L. (2017). Current trends in tendinopathy: consensus of the ESSKA basic science committee. *Part I: Biology, biomechanics, anatomy and an exercise-based approach. Journal of experimental orthopaedics*, 4(1), 18. <https://doi.org/10.1186/s40634-017-0092-6>

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