



HESI
GLOBAL

Enhancing Quality of Life & Outcomes in Cancer Care Through Improved Therapeutic Safety:

A Multi-Faceted Approach

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ABSTRACT

There are more than 30 million cancer survivors worldwide, many living for years or decades after their diagnoses. Although this is a positive development, there has not been an equivalent increase in efforts to measure, study, or prevent the acute, delayed, and/or chronic toxicities that can be associated with life-prolonging therapies. These effects negatively impact the health and quality of life for patients and survivors. The HESI Global organization has taken a multi-faceted approach to bringing fit for purpose science to these challenges. These approaches include competitive seed funding to support translational research to reduce treatment-related toxicities and improve QoL, multi-sector public private research to understand mechanisms of toxicity of novel & long-utilized oncologics with the goal of reducing these toxicities, and publication and education to raise awareness of this unmet need.

METHODS

The non-profit HESI Global organization generates new data and methods to improve cancer patient quality of life through a multi-faceted approach.

Catalytic Seed-Grants: Since 2017, the competitive HESI Thrive program has funded academic and clinical research focused on preventing or reducing treatment-related toxicities. The program is annual competitive and open internationally.

Collaborative Multi-Sector Research: HESI convenes global experts across academia, government, industry, and non-profits to form multi-year teams that generate new data on mechanisms of toxicity from both established and emerging therapies.

Outreach & Communication: Active dissemination through peer-reviewed publications, lectures, and global scientific engagement.



THRIVE
MAKING PATIENT
QUALITY OF LIFE AN ACTIVE
RESEARCH PRIORITY



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Targeted protein degraders: a call for collective action to advance safety assessment

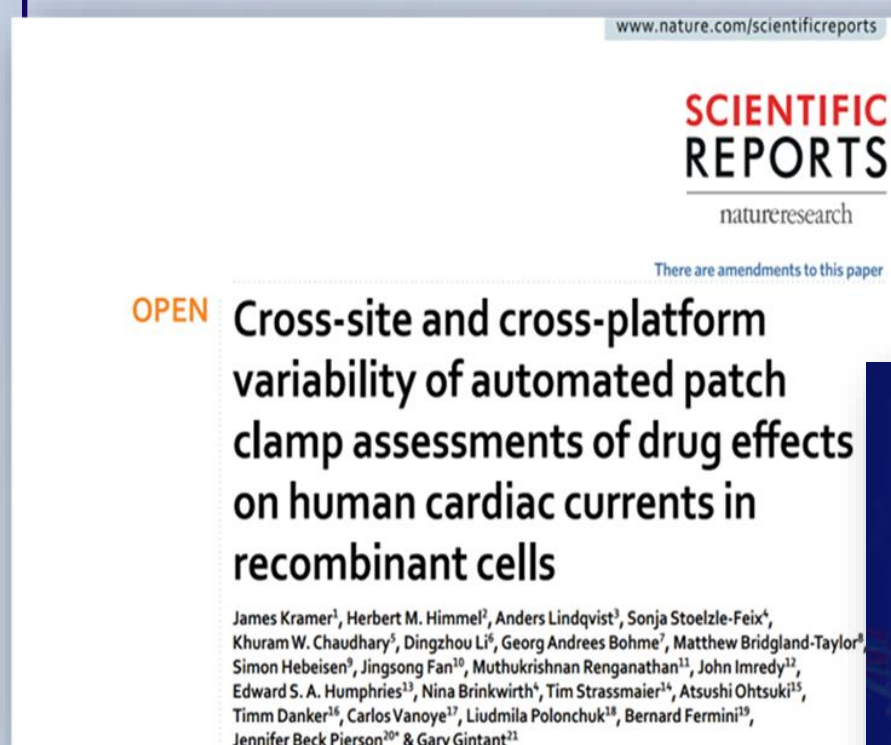
Targeted protein degraders (TPDs) are emerging classes of therapeutics that have the potential to address difficult drug targets in new ways. In 2021, experts convened to discuss challenges in TPD safety evaluation, and supported supplementing individual efforts to address these challenges with collective development of novel decision frameworks, tools and a shared evidence base.

By Lyn H. Jones, Constance A. Mitchell, Lise Loberg, Mira Pavkovic, Mohan Rao, Ruth Roberts, Katie Stamp, Laurie Volak, Matthias B. Wittwer & Syril Pettit



RESULTS

- **Advanced foundational research** that led to major grant funding and global collaborations.
- **Launched innovative ring trials and expert forums** to address cancer treatment toxicities including public-private research programs on ADCs, TPDs, CAR-T, and gene therapy over the past 4 years.
- **Thrive program generated over 35 peer-reviewed publications** in the past 5 years, cited more than 600 times.
- **International conferences** that raise visibility among regulatory, academic, industry, and clinical stakeholders.
- **Data and Resource Sharing** across public and private sector.



THRIVE ACHIEVEMENTS

- 7 Rounds of Award Winners
- >30 International Conference Presentations
- 35+ Original Peer Reviewed Publication
- 6 Awards and Recognitions for THRIVE Research

- 2 Patent Applications Catalyzed by Thrive
- 7 Novel Funding Grants Catalyzed by Thrive
- 1 New Company Catalyzed by Thrive
- Multiple New Inter and Intra Institution Collaborations Spurred

Cancer Moonshot and Biden Cancer Initiative
Recognition for HESI Thrive

CONCLUSIONS

The nature and timing of cancer treatment-related toxicities are heterogeneous. Reducing or eliminating their impact on cancer patients and survivors also requires a multi-sector and multi-disciplinary effort. Through novel data generation and funding, the HESI Global approach has created novel to generate data and positively impact the pathway from drug development to patient outcome – and back.

REFERENCES

- Jones et al. 2023. [Targeted protein degraders: a call for collective action to advance safety assessment](#). *Nature Review Drug Discovery*.
- Kramer, et al 2022. Cross-site and cross-platform variability of automated patch clamp assessments of drug effects on human cardiac currents in recombinant cells. *Sci Rep* **10**, 5627 (2020).
- Publications from HESI Global Thrive Funding <https://scholar.google.com/citations?hl=en&user=tD99RGQAAAAJ>
- www.hesiglobal.org www.hesithrive.org