



## Pacific Northwest bioMedical Innovation Co-laboratory (PMedIC):

An OHSU/PNNL Collaboration



# PMEDIC FALL 2022 NEWSLETTER

## PMedic By the Numbers

**\$27** Million total funding for research program grants

**\$46** Million in center grants including PNCC

**51** individual OHSU and PNNL scientists collaborating on programmatic grants or pilot projects

**24** Total Externally Funded Projects

**11** Pilot Projects FY2022

**7** Newly Awarded Projects FY 2022

**30** Cross-Institutional Collaboration Meetings

**41** PMedic Co-Publications

**2** PMedic innovation award projects

PMedic was launched in 2018, this partnership between Oregon Health and Science University (OHSU) and Pacific Northwest National Lab (PNNL) offers collaborative research and educational experiences for staff, faculty, clinicians, and students at the campuses of both institutions.

### **Vision:**

Improve human health and disease treatment through collaborations that integrate cutting-edge research and education with clinical practice.

### **Mission:**

Generate, interpret, and integrate multi-dimensional panomics data, imaging and clinical results to gain mechanistic understanding of disease and develop innovative therapies.

Visit [pmedic.labworks.org](https://pmedic.labworks.org) for projects, highlights, and seminars.

# 2022 Collaboration Highlights



## PMedIC Team Receives NIH Grant to Advance Knowledge of Senescent Cells

As humans age, some cells in the body that previously grew and replaced old ones become damaged and lose the ability to multiply—entering an enduring state called senescence. When this occurs, cells can secrete signaling molecules that affect organs, which scientists have linked to diseases such as cancer and diabetes. While we understand the negative impact of senescent cells, there is not enough information to create effective medicine to eliminate them. A team of researchers from Pacific Northwest National Laboratory (PNNL) and Oregon Health and Science University (OHSU) is out to change that. [Read about the NIH Grant and details of the project here.](#)

## PNNL to Provide Another Five Years of Tumor Characterization and Translational Research for Cancers

The Office of Cancer Clinical Proteomics Research (OCCPR) at the National Cancer Institute (NCI), part of the National Institutes of Health, [announced in June](#) that PNNL is one of three Proteome Characterization Centers (PCC), and it will also partner with Oregon Health & Science University (OHSU) as a Proteogenomic Translational Research Center (PTRC). PCCs, PTRCs, and Proteogenomic Data Analysis Centers (PGDAC) form NCI's [Clinical Proteomic Tumor Analysis Consortium \(CPTAC\)](#), which PNNL has been involved in since 2011. [Learn more about the work being done via this link.](#)

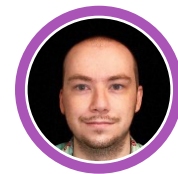
## COVID-19 Fattens Up Our Body's Cells to Fuel Its Viral Takeover

Scientists from Oregon Health & Science University and the Department of Energy's [Pacific Northwest National Laboratory](#) authored a [recent paper in Nature Communications](#) based on observations that people with a high body-mass index and conditions like cardiovascular disease and diabetes are more sensitive to the disease. [Learn more about their paper and findings here.](#)

## PMedIC Internships

### August George

PhD Candidate Biomedical Engineering (Dan Zukerman, OHSU) – PhD intern at PNNL developing graph-based methods to improve the processing of cyro-electron tomography (mentor Margaret Cheung, PNNL)



### Itallia Pacentine

Masters Candidate Department of Medical Informatics and Clinical Epidemiology – Internship at PNNL to perform network-based analyses for multi-omics data (mentor Jason McDermott, PNNL)



Interested in learning more about opportunities like these? PMedIC has defined workflows approved by the provost office for hosting students at PNNL.

## PMedIC Retreat Recap

PNNL hosted PMedIC Collaboration meeting on September 8-9, 2022. The meeting focused on expanding current collaborations and generating new research focus areas. The meeting included eight researchers and partnership experts from OHSU and about 20 PNNL staff.



PMedIC team at the 2022 retreat on PNNL's campus. Photo from Cheryl Bruun.

# Ways to Connect and Learn

## Quarterly seminar series

For all upcoming seminars and previous recordings:  
<https://pmedic.labworks.org/events.stm>

## Departmental Seminars

Schedule an informational talk about PMedIC's opportunities at your next group meeting.

## Focus forums to discuss new projects

Have a targeted group meeting with OHSU and PNNL scientists to discuss new research areas.

## Bi-Annual Newsletter

Our PMedIC Newsletter provides regular communication about successful collaborations and ongoing initiatives and events. If you'd like to share this newsletter with a colleague, they are able to sign up by contacting your institutional co-director.

# How to Acknowledge PMedIC

## Acknowledge partnership in publications, posters and talks:

"This research is affiliated with the PMedIC joint research collaboration between OHSU and PNNL."

## Acknowledge Pilot funding (publications, posters, talks):

**ERS Grant:** Supported by Exploratory Research Seed Grant funding from the OHSU School of Medicine.

**LDRD:** was conducted under the Laboratory Directed Research and Development Program at Pacific Northwest National Laboratory, a multiprogram national laboratory operated by Battelle for the U.S. Department of Energy

**ERS and LDRD:** was conducted under the Laboratory Directed Research and Development Program at Pacific Northwest National Laboratory, a multiprogram national laboratory operated by Battelle for the U.S. Department of Energy and Exploratory Research Seed Grant funding from the OHSU School of Medicine.

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# Contact Information

## PMedIC Co-Directors



**Beth Habecker, Ph.D.**  
PMedIC Co-Director  
[habecker@ohsu.edu](mailto:habecker@ohsu.edu)  
Direct: 503.494.0497



**Bobbie-Jo Webb Robertson, Ph.D.**  
PMedIC Co-Director  
[bj@pnnl.gov](mailto:bj@pnnl.gov)  
Direct: 503.375.2292

## OHSU Strategic Partnerships



**Laura Erker, Ph.D.**  
Director of Strategic Partnerships  
[erkerl@ohsu.edu](mailto:erkerl@ohsu.edu)  
Direct: 503.494.9904  
Cell: 503.250.0524