Phyllodes Tumor Research (PHYTR) Laboratory

Here's what has happened in the last year and what's to come!

Welcome to our Phyllodes Tumor Research (PHYTR) Laboratory annual newsletter! First, we would like to express gratitude to all of the patients who have generously agreed to participate in our research and who have entrusted Duke with their care. Without your partnership, there would be no PHYTR lab.

We would also like to sincerely thank our donors for their generosity and dedication. Your support allows us to continue to push the boundaries of phyllodes research and put our new ideas into action.

In terms of our 2024 news, Dr. Laura Rosenberger, Principal Investigator of the PHYTR lab, was selected for the U-01 award from the Department of Health and Human Services Food and Drug Administration for her research project titled "Defining Actional Opportunities in Malignant Phyllodes via Genomic Profiling." The U-01 award will fund $1.5 million to Dr. Rosenberger's research project for three years.

We were also excited to receive a visit this summer from our colleagues in the Netherlands, Marcos and Marloes van Esterik, who founded the Dutch Phyllodes Group. The Dutch Phyllodes Group works to compile relevant and accurate information about phyllodes, functions as a support group for patients, and promotes phyllodes tumor research. We had a great time showing them around Duke!

We have a busy 2025 ahead of us with several projects in the works. Together, we can make real progress towards better understanding phyllodes tumors and how to best treat them. Thank you for your continued support!

Enjoy this year's newsletter.

With Gratitude,

The PHYTR team

In this newsletter:

Our team

Lab Updates

Recent Publications

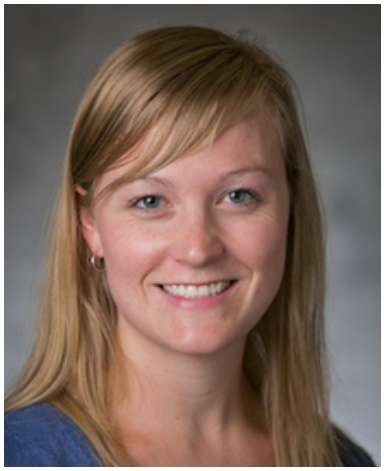
Looking ahead to 2025

Staying Connected

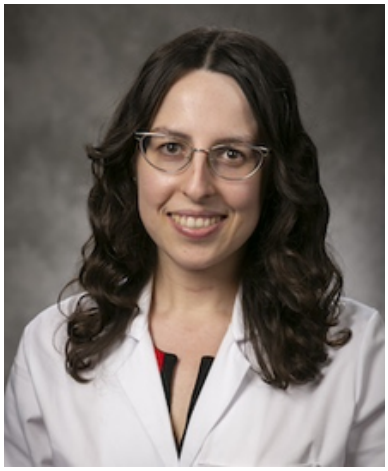
Our Team



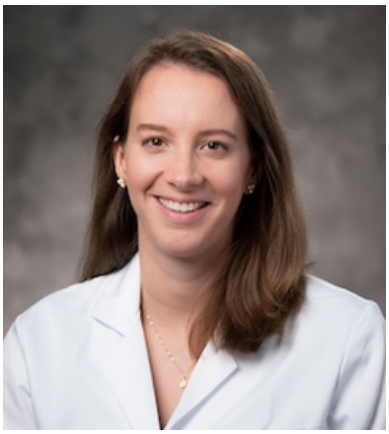
Laura H. Rosenberger, MD, MS
Principal Investigator
Associate Professor of Surgery



Samantha M. Thomas, MS
Senior Biostatistician



Anna D. Louie, MD
Resident Physician



Amanda L. Nash, MD
Resident Physician



Felecia Walton, BS (HH)
Clinical Research
Coordinator II



Michael D, Aiduk, BS
MD / PhD Student



Ellery H. Reason, BS
MD Student

2024 PHYTR Lab Updates



Laura Rosenberger, MD, MS, Receives U-01 Award for Breast Cancer Research

PHYTR Principal Investigator Dr. Laura Rosenberger has been selected for the U-01 award from the Department of Health and Human Services Food and Drug Administration for her research project titled “Defining Actional Opportunities in Malignant Phyllodes via Genomic Profiling.”

The U-01 award will fund $1.5 million to Dr. Rosenberger’s research project for 3 years. The project will allow collaboration of tissue and data from Duke, Memorial Sloan Kettering Cancer Center (MSKCC), and Dana-Farber Brigham Cancer Center (DF-BCC). The sites can combine cases of malignant phyllodes tumors to identify potential therapeutic targets and develop a predictive model of recurrence events.

Grant Details:
i. Grant Number: 1U01FD007909-01A1
ii. Budget Period: 09/05/2024- 08/31/2025
iii. Principal Investigator: Rosenberger, Laura Horst
iv. Project title: Defining Actionable Opportunities in Malignant Phyllodes via Genomic Profiling

Dutch Phyllodes Group Visits Duke University

On May 10th, 2024, the PHYTR lab was thrilled to welcome Marcos and Marloes van Esterik to Duke. We had a great day of touring the lab, discussing current projects in phyllodes research, and brainstorming for future collaboration opportunities.



Recent Publications

Germline Genetic Mutations in a Multi-Center Cohort of 248 Phyllodes Tumors.
Rosenberger LH, Thomas SM, Hieken TJ, Gallagher KK, Spanheimer PM, Neuman HB, Weiss AC, King TA, Wong J, Tong BS, Nash AL, Frazier MP, Menendez CS, Hwang ES, Jakub JW, Plichta JK. Breast Cancer Res Treat. 2024 Sep 13. Online ahead of print.

Genomic landscape of malignant phyllodes tumors reveals multiple targetable opportunities.
Rosenberger LH, Riedel RF, Diego EJ, Nash AL, Grilley-Olson JE, Danziger NA, Sokol ES, Ross JS, Sammons SL. Oncologist. 2024 Aug 27. Online ahead of print.

Genomic Landscape of Malignant Phyllodes Tumors Identifies Subsets for Targeted Therapy.
Rani Bansal, Tolulope Adeyelu, Andrew Elliott, Antoinette R. Tan, Jennifer R. Ribeiro, Jane Meisel, Matthew J. Oberley, Stephanie L. Graff, George W. Sledge, Jr., Juneko E. Grilley-Olson, Sarah L. Sammons, Laura H. Rosenberger. Journal of Clinical Oncology, Precision Oncology. Accepted for publication, November, 2024. In press.

Relapsing Malignant Phyllodes Tumor Presenting as Isolated Acrometastases.
Reason EH, Aiduk MD, Eward WC, Rosenberger LH. BMJ Case Rep. 2024 Jul 3;17(7):e258640.

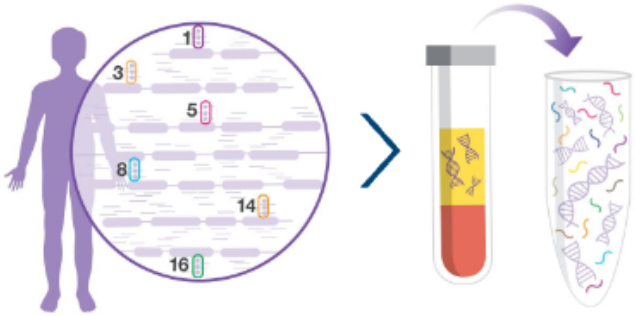
Looking ahead to 2025...

1) Systemic Treatment for Phyllodes Tumors: A Scoping Review of the Literature

- With collaborators from different institutions across the country, we are working to write a review of all prior research studies investigating the use of chemotherapy for phyllodes tumors
- Our goal is that this review will help inform future clinical trials and treatment recommendations for phyllodes tumors.

2) Utility of the Singapore Recurrence Nomogram for Phyllodes Tumors in a United States Cohort

- In 2012, a group from Singapore published a nomogram for predicting recurrence of phyllodes tumors based on histologic features.
- This nomogram has been validated in several other countries, but never in the US. We are exploring if this nomogram is useful for predicting recurrence in a US cohort, and if not, how we can improve it.



3) Feasibility of Detecting Malignant Phyllodes Tumor ctDNA in Patients with and without Metastatic Disease

- Circulating tumor DNA (ctDNA) is a novel tool used in cancer care to monitor disease recurrence and response.
- Tumor cells shed DNA into the bloodstream that can be detected by a blood test.
- Using patient blood and tumor samples, we are currently working with Natera Corporation to explore if ctDNA is detectable in patients will malignant phyllodes, and if the amount detected varies by how much disease is present.

Stay Connected!

- Website: https://surgery.duke.edu/divisions/surgical-oncology/research/research-laboratories/phyllodes-tumor-research-phytr
- Twitter/X: @RosenbergerMD

Thank you for reading!