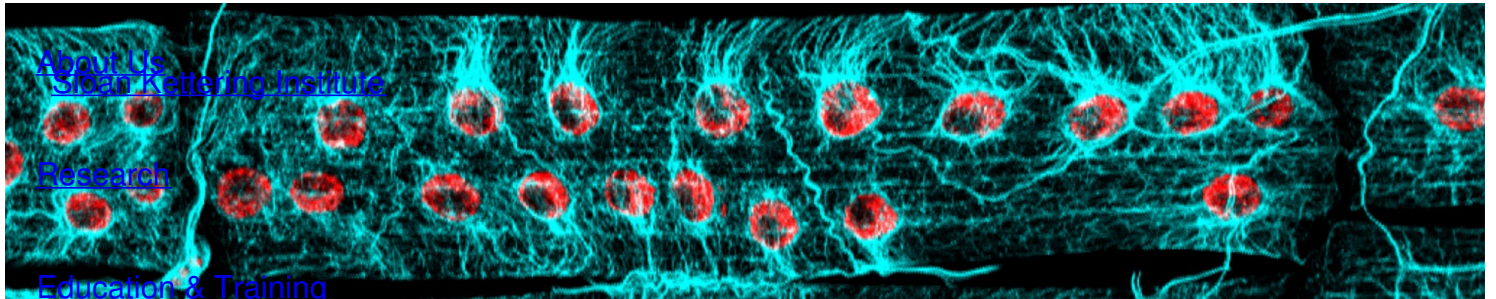


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Memorial Sloan Kettering
Cancer Center



DEVELOPMENTAL BIOLOGY PROGRAM

[News & Events](#)

The Mary Baylies Lab

[Open Positions](#)

Developmental Biology Program

Research



Mary Baylies, PhD

Developmental biologist Mary Baylies studies the mechanisms that form and maintain muscle both during normal development and in disease.

[View Lab Overview](#) →

Research Projects

[Mechanisms Required for Muscle Formation and Homeostasis](#)

[Mechanisms Driving Muscle Wasting and Identification of Novel Therapeutics](#)



Featured News

IN THE LAB



[Scientists Home In On “Equation” for Muscle Cell Size](#)

A new study in flies reveals a previously unknown type of cooperation at work in muscle cells.



[At Work: Developmental Biologist Mary Baylies](#)

Learn about Mary Baylies, a developmental biologist studying muscle biology at the Sloan Kettering Institute.



[Student Lecture Highlights Major Trends in Modern Cancer Research](#)

More than 500 high school students and their teachers filled the Rockefeller Research Laboratories to learn about recent discoveries.

Publications Highlights

[Balakrishnan M, Yu SF, Chin S, Soffar DB, Windner S, Goode B, Baylies MK \(2020\). Cofilin loss in *Drosophila* contributes to muscle weakness through defective sarcomerogenesis during muscle growth. *Cell Reports*. 32\(3\): 107893. PMID: PMC7479987.](#)

Windner SE, Manhart A, Brown A, Mogilner A, Baylies MK. (2019.) Nuclear Scaling Is Coordinated among Individual Nuclei in Multinucleated Muscle Fibers. *Dev Cell*. Apr 8;49(1):48-62.e3.
Featured as a cover image and in a Preview.

[View All Publications](#)

People



Mary Baylies, PhD

The Baylies laboratory studies the mechanisms that form and maintain muscle both during normal development and in disease.

PhD, The Rockefeller University

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Email Address

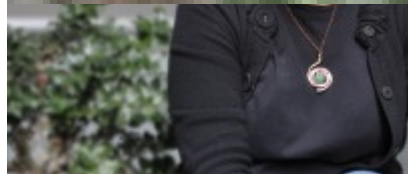
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📄 [Download CV](#)

PDF File

Members



Mary Baylies

Member



David

Soffar

Research Technician



Bianca Borchin

Research Fellow



Briana
Christophers
Graduate Student



Meg Distini
Administrative Assistant

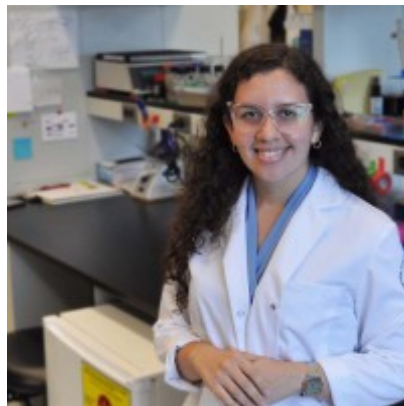
Marco Gualtieri
Research Fellow



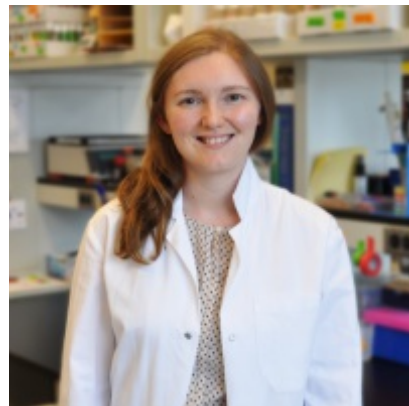
Therandë Jashari
Graduate Student



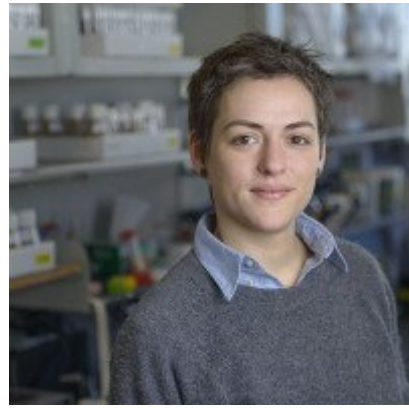
Ruth
Silimon
Graduate Student



Nicole J. Torres-
Santiago
MSK Bridge Program
Scholar



Victoria von
Saucken
Graduate Student



Stefanie Windner

Research Fellow

Lab Alumni

+

Lab Affiliations

+

Achievements

Identified that global, regional, and local inputs contribute to nuclear size regulation in multinucleated skeletal muscle fibers.

Demonstrated that properly placed nuclei are critical for healthy muscle function.

Discovered that microtubules are critical for the movement and positioning of nuclei in the multinucleated skeletal muscle cell.

Developed *Drosophila* models of muscle wasting in cancer cachexia and aging.

Identified how actin filament dysregulation contributes to skeletal muscle dysfunction in models of nemaline myopathy.

Read more

+

Lab News & Events

UPCOMING EVENT

Human Myogenesis in Development and Disease

Thursday, September 26, 2024 - 2:00 PM to 3:00 PM

Memorial Sloan Kettering Cancer Center
Rockefeller Research Laboratories
430 East 67th Street
RRL-120 (Auditorium)
New York, NY 10065

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Lab Resources

+

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MSK requires doctors and faculty members to report (“disclose”) the relationships and financial interests they have with external entities. As a commitment to transparency with our community, we make that information available to the public.

Mary Baylies discloses the following relationships and financial interests:

French National Research Agency

Professional Services and Activities (Uncompensated)

Howard Hughes Medical Institute

Professional Services and Activities

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