PIOTR JUNG

PhD · Cancer Biologist · Educator

jungpk@chop.edu · +1 617 202 1644 · Philadelphia, PA

CHOP Profile · LinkedIn · Google Scholar · ResearchGate · ORCID · SciProfiles · FASEB Journal

01 EDUCATION

PhD in Cell Signaling · *University of Cambridge · Babraham Institute, UK* · 2015 – 2021

Marie Curie Fellow · Lab heads: Dr. Len Stephens & Dr. Phill Hawkins · Direct supervisor: Dr. Tamara Chessa

– Dissertation: Dissecting the Function and Interactome of PLEKHS1 in Prostate Tumorigenesis

MSc in Molecular Biology · *University of Warsaw · Poland* · 2011 – 2015

Lab head: Prof. Anna Maria Ciemerych-Litwinienko · Direct mentor: Dr. Małgorzata Zimowska-Wypych

– Cellular inflammation and ECM remodeling in skeletal muscle regeneration

BSc in Biotechnology · *University of Warsaw · Poland* · 2008 – 2011

Lab head: Prof. Anna Maria Ciemerych-Litwinienko · Direct mentor: Dr. Małgorzata Zimowska-Wypych

– Matrix metalloproteinases in muscle repair and disease

02 RESEARCH EXPERIENCE

Postdoctoral Research Fellow · *Children's Hospital of Philadelphia (CHOP) · Philadelphia, PA* · Sep 2022 – Present

PI: Dr. Adam Wolpaw · Pediatric cancer biology, neuroblastoma, tumor heterogeneity & immunotherapy

– Developed 3D neuroblastoma tumorsphere models from primary TH-MYCN tumors and 9464D cell line to study MMP-driven invasion, growth factor signaling, and GD2-directed immunotherapy

– Two manuscripts in preparation (first and co-first author); contributed to Nature Communications (Guerra et al., 2025)

– Supervises five undergraduate/post-baccalaureate trainees and a mouse technician; manages IACUC compliance and laboratory SOPs

– Contributes to NIH grant writing and manuscript preparation

Non-Clinical Research Fellow · *Massachusetts General Hospital · Boston, MA* · Jan – Aug 2022

PI: Dr. Eugene Oh · Ubiquitin pathway mechanisms in tumorigenesis

– Cell-based research on ubiquitin-mediated protein degradation; directly supervised a research technician

Postdoctoral Fellow · *Babraham Institute, University of Cambridge · Cambridge, UK* · Jun 2020 – Dec 2021

PIs: Dr. Len Stephens & Dr. Phill Hawkins · PI3K/AKT signaling in prostate cancer

– Generated CRISPR knock-in mouse line (endogenous Avi-tagged PLEKHS1); established 3D prostate organoid culture system

– Affinity purification proteomics to map PI3K interactome; managed three transgenic mouse lines; EU consortium coordination

Graduate Researcher · *Dana-Farber Cancer Institute / Harvard Medical School · Boston, MA* · Mar 2013 – Nov 2014

PI: Prof. Peter Sicinski · Cell cycle regulation and cancer proteomics

– Cyclin E–CDK2 interactome mapping; tissue-specific cyclin E functions in vivo

Graduate Researcher (BSc/MSc) · *University of Warsaw · Warsaw, Poland* · 2008 – 2015

Lab head: Prof. Anna Maria Ciemerych-Litwinienko · Direct mentor: Dr. Małgorzata Zimowska-Wypych

– MMP-2/MMP-9 biology in skeletal muscle regeneration and inflammation; in situ zymography; rat surgical models; primary cell isolation

03 TEACHING EXPERIENCE

Small Group Leader — Experimental Design Workshop + Graduate Student Orientation Leader · *University of Pennsylvania · Philadelphia, PA* · 2024 – Present

– Facilitates case-study-based small-group sessions for incoming PhD students on experimental design principles: biological vs. technical replicates, hypothesis-driven frameworks, experiment prioritization, and structured planning

– Organized and led Graduate Student Orientation programming (Aug 2024): community-building, institutional navigation, peer mentorship across a large and diverse cohort

Teaching Assistant — Cell Biology (Undergraduate) · *University of Pennsylvania · Philadelphia, PA* · Fall 2023

- Led weekly recitation sections for ~40 STEM majors; cell biology, biochemistry, and molecular genetics
- Designed assessments, provided individualized feedback; recognized for approachability and inclusive classroom practices

Guest Lecturer — Cancer Biology & Scientific Careers · *La Salle University · Philadelphia, PA* · 2025 – 2026

- Lecture on 3D tumor models and scientific careers; led to ongoing individual research mentorship of Kawenndjy L. Sully (May 2026–present)

04 UNDERGRADUATE & POST-BACCALAUREATE MENTORSHIP

Children's Hospital of Philadelphia · Jan 2022 – Present

- Rebecca de Jesus (Apr–Aug 2023) — cell culture, 3D tumorsphere culture, mouse handling
- Amanda Morrison (Oct 2023–May 2024) — genotyping, cell culture, molecular biology techniques
- Kevin Bayingana (Sep 2023–Jul 2025) — tumorsphere models, western blotting, RNA/protein prep, mouse models → Medical School 2025
- Megan Xie (Sep 2024–Present) — signal transduction assays, drug testing, cell culture · ALSF Scholar · UPenn Symposium 2024, 2025
- Kawenndjy L. Sully (La Salle University, May 2026–Present) — undergraduate research mentorship in cancer biology

Graduate Student Co-Supervisor · *Babraham Institute, University of Cambridge · Cambridge, UK* · 2016 – 2020

- Co-supervised undergraduate summer students alongside Dr. Tamara Chessa; cell signaling assays, molecular biology, data analysis

05 PUBLIC ENGAGEMENT & SCIENCE OUTREACH

- Cambridge Science Festival — Cell Signaling Escape Room (2018, 2019): co-designed and facilitated interactive public science event
- European Life Lab Festival — Workshop leader on science communication and cell biology for public and student audiences (2018)
- "Sweet Cell" Workshop, Antidotum — Hands-on cell biology for children; participants built organelle models from sweets and fruit, Warsaw (2012–2014)
- Covid-Sations — Co-led virtual immunology and vaccination lecture series organized by Phi Beta Kappa; evolved into an ongoing public seminar series (2020–2021)

06 PEDAGOGICAL & DEI TRAINING

- Future Faculty Institute — Justice, Equity, Belonging & Identity (JEBI) · College of the Holy Cross · Sep 2025
- Academic Certificate in Teaching (ACT) · Children's Hospital of Philadelphia · Through Dec 2025
- Bench to Classroom Workshop · The Jackson Laboratory, Farmington CT · Mar 2025
- Preparing for Academic Teaching (PAT) · University of Pennsylvania · May 2024
- CETLI Student Mentoring Workshop · University of Pennsylvania · Jun 2024

07 PUBLICATIONS

Peer-Reviewed Articles

1. **Jung P**, Wolpaw AJ. "Three-Dimensional Culture Systems in Neuroblastoma Research." *Organoids 2025, 4(2):10. doi:10.3390/organoids4020010*
2. Guerra AD, Matkar S, Acholla C, …**Jung P**, …Wolpaw AJ, Bosse KR, Mossé YP et al. "A humanized ALK-directed antibody-drug conjugate demonstrates efficacy in ALK-expressing cancers." *Nature Communications 16:7578, 2025. PMID: 40813394*
3. Chessa TAM, **Jung P**, Anwar A, Suire S, et al. "PLEKHS1 drives PI3Ks and remodels pathway homeostasis in PTEN-null prostate." *Molecular Cell 83(16):2991–3009, 2023*
4. Zimowska M, Kasprzycka P, Bocian K, Delaney K, **Jung P**, et al. "Inflammatory response during slow- and fast-twitch muscle regeneration." *Muscle & Nerve 55(3):400–409, 2017*

5. Odajima J, Saini S, **Jung P**, Ndassa-Colday Y, et al. "Proteomic landscape of tissue-specific cyclin E functions in vivo." *PLoS Genetics 12(11):e1006429, 2016*

6. **Jung P**, Zimowska M. "Matrix metalloproteinases in development, physiology and degenerative processes of skeletal muscles." *Postępy Biochemii 62(1):25–35, 2016*

Conference Proceedings

7. **Jung P**. "Advancing Neuroblastoma Research: A 3D Tumorsphere Model to Study GD2 Immunotherapy and Metastasis." *Biology and Life Sciences Forum, MDPI, 2025* **[Conference Paper]**

Posters

8. **Jung P**, Bayingana K, Xie M, Shapiro M, et al. "Tumorspheres: A new 3D model to study GD2 therapy, lineage heterogeneity, and motility in neuroblastoma." *Advances in Neuroblastoma Research (ANR), 2025* **[Poster]**

9. **Jung P**, McNerney K, Malka O, Dessau J, Vu A, et al. "TH-MYCN tumors convert to a mesenchymal phenotype, lose GD2, and increase inflammatory signaling." *Advances in Neuroblastoma Research (ANR), 2023* **[Poster]**

PhD Thesis

10. **Jung P**. "Dissecting the Function and Interactome of PLEKHS1 in Prostate Tumorigenesis." *PhD Thesis, University of Cambridge, 2021.* **[PhD Thesis]**
https://www.repository.cam.ac.uk/items/af32d2b7-5fb1-4bc7-a41e-862093f3ef82

Two additional first- and co-first-author manuscripts in preparation (neuroblastoma / cancer biology).

08 INVITED TALKS & SELECTED PRESENTATIONS

- 3rd International Online Conference on Cells (Mar 2025) · WHIP Seminar, CHOP (Feb 2024)
- ANR Conference, Washington DC (May 2025) · ANR Conference, Amsterdam (May 2023)
- SymBLS Conference, Cambridge (Nov 2019) · 4th PI3K Symposium, IDIBELL Barcelona (Feb 2019)
- PI3K Consortium Symposia — FMP Berlin (2018), Babraham Institute (2017), UCL London (2016)
- Intercollegiate Symposium of Biotechnology 'Symbiosis', Warsaw (2012) — Best Poster Award

09 AWARDS & FELLOWSHIPS

- Fellows for the Future Fellowship (2024) — DEI leadership development for early-career researchers · FASEB
- FASEB Editorial Board Fellowship (2023)
- ANR Travel Grant (2023)
- Marie Curie Scholarship (2016) — EU Horizon 2020, PI3K in Health and Disease consortium
- Best Poster Award — Intercollegiate Symposium of Biotechnology 'Symbiosis', Warsaw (2012)

10 EDITORIAL & ACADEMIC SERVICE

Editorial

- Editorial Board Fellow, The FASEB Journal (2023–Present)
- Reviewer of the Month, Translational Pediatrics (2026)
- Peer Reviewer: FASEB Journal · Translational Pediatrics · Cancer Biology & Medicine · American Journal of Cancer Research · Biomaterials Science

Academic Service

- Travel Grant Reviewer, CHOP (Aug 2025)
- Reviewer, Outstanding Research Staff Awards, CHOP (May 2025)
- Panel Organizer, SymBLS Conference, Cambridge (2019)
- PhD Student Committee Leader, Babraham Institute (2017–2018)
- Conference Organizer, Biofuzje, Warsaw (2013)
- Co-Founder & Vice-President, Antidotum Student Association, University of Warsaw (2012)

11 TECHNICAL SKILLS

Cell culture (2D & 3D mammalian)	3D tumorsphere models & organoids	CRISPR knock-in generation
Western blotting & co-IP	In situ zymography (MMP activity)	IHC, immunofluorescence & histology
Brightfield & fluorescence microscopy	RNA-seq & bioinformatic analysis	Drug screening & inhibitor assays
PCR, qPCR & gel electrophoresis	RNA & DNA extraction	Phospho-protein & signaling analysis
Mouse colony management & breeding	IP injection & tail vein injection	Tumor allograft models
Oral gavage	Primary cell isolation & dissection	SOP writing & IACUC compliance
Fiji/ImageJ · R · Python	RNA-seq data analysis	Grant & manuscript writing

Languages: English (full professional) · Polish (native/bilingual)

12 FEATURED & IN THE NEWS

Translational Pediatrics · 2026

Reviewer of the Month

Selected as an outstanding reviewer for 2026; interview on peer review philosophy and practice in pediatric cancer research.
https://tp.amegroups.org/post/view/reviewer-of-the-month-2026#piotrjung

National Postdoctoral Association — What's A Postdoc? In Their Words

Featured Postdoc Profile

Featured in the NPA's international postdoc storytelling initiative; reflections on research, career path, and postdoc life.
https://www.nationalpostdoc.org/page/WaP_Archives

FASEB · 2024

Fellows for the Future — Fellow Profile

Selected for the FASEB Fellows for the Future fellowship for DEI leadership in early-career biomedical science.
https://www.faseb.org/professional-development/faseb-fellows-for-the-future/piotr-jung

The FASEB Journal · 2023–Present

Editorial Board Fellow

Appointed to the early-career editorial board; peer review and manuscript evaluation in multidisciplinary biomedical science.
https://faseb.onlinelibrary.wiley.com/hub/journal/15306860/homepage/editorial-board

Nature Communications · 2025

ALK-Directed ADC in Neuroblastoma (Guerra et al.)

Co-author. A humanized ALK-directed antibody-drug conjugate demonstrates efficacy in ALK-expressing cancers. PMID: 40813394
https://www.nature.com/articles/s41467-025-62979-1

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