Stanford

Kathryn (Katie) Kapp

Postdoctoral Scholar, Radiology

Bio

HONORS AND AWARDS

- Honorable Mention, Stanford.Berkeley.UCSF Next Generation Faculty Symposium (2025)
- Postdoc to Faculty Workshop Attendee, American Chemical Society (ACS) (2025)
- Postdoctoral Career Development Award, American Society for Mass Spectrometry (ASMS) (2025)
- Student Travel Grant, American Chemical Society, Nashville Local Section (2022)
- Travel Award, Vanderbilt University Graduate Student Council (2022)
- Travel Award, United States Human Proteome Organization (US HUPO) (2022)
- Travel Grant to Present Research, Vanderbilt University Graduate School (2022)
- US HUPO to World HUPO Congress Travel Award, United States Human Proteome Organization (US HUPO) (2022)
- First-Year Chemistry Graduate Student Three-Minute Thesis Competition, Vanderbilt University Chemistry Department (2019)
- St. Catherine Medal, Gannon University (2015)
- Braeger Award for Research Writing, Gannon University (2013)
- Excellence in First-Year Chemistry Award, Gannon University (2013)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Associate Trainee Member, Stanford Cancer Institute (2024 - present)
- Member, American Society for Mass Spectrometry (ASMS) (2023 - present)
- Member, World Human Proteome Organization (HUPO) (2022 - present)
- Member, American Chemical Society (ACS) (2021 - present)
- Member; Education and Outreach Committee Member, United States Human Proteome Organization (US HUPO) (2021 - present)
- Member, American Association for the Advancement of Science (AAAS) (2020 - present)
- Member, Vanderbilt University Women in Science and Engineering (2019 - 2023)
- Member, Graduate Women in Science, Nashville Chapter (2019 - 2023)
- Member, Vanderbilt University Chemical Biology Association of Students (2019 - 2023)

PROFESSIONAL EDUCATION

- Bachelor of Science, Gannon University (2017)
- Doctor of Philosophy, Vanderbilt University (2023)

STANFORD ADVISORS

- Sharon Pitteri, Postdoctoral Faculty Sponsor

COMMUNITY AND INTERNATIONAL WORK

- Recruitment Officer for Stanford Science Penpals

LINKS

- LinkedIn: https://www.linkedin.com/in/kathryn-kapp/

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

I am interested in using mass spectrometry to study protein glycosylation, a complex post-translational modification that is known to be heavily altered in cancer and could improve early cancer detection. I am using mass spectrometry to study protein glycosylation in a variety of clinical samples and cancers, but I am particularly interested in proximal fluid samples to develop more accessible ways to obtain clinical samples to study cancer and women's health.

LAB AFFILIATIONS

- Sharon Pitteri, Pitteri Lab (9/15/2023)

Teaching

COURSES

2024-25

- Mass Spectrometry and Proteomics: Opening the Black Box: BIOS 227 (Win)

2023-24

- Mass Spectrometry and Proteomics: Opening the Black Box: BIOS 227 (Win)

Publications

PUBLICATIONS

- **Intact Glycopeptide Analysis of Human Prostate Tissue Reveals Site-Specific Heterogeneity of Protein Glycosylation in Prostate Cancer.** *Glycobiology*
  Kapp, K. L., Garcia-Marques, F., Totten, S. M., Bermudez, A., Tanimoto, C., Brooks, J. D., Pitteri, S. J.
  2025

- **Establishing and characterizing the molecular profiles, cellular features, and clinical utility of a patient-derived xenograft model using benign prostatic tissues.** *Laboratory investigation; a journal of technical methods and pathology*
  Polasko, A. L., Zhang, D., Ramraj, A., Chiu, C. L., Garcia-Marques, F. J., Bermudez, A., Kapp, K., Peterson, E., Qiu, Z., Pollack, A. S., Zhao, H., Pollack, J. R., Pitteri, et al
  2024: 102129

- **Charge within Nt17 peptides modulates huntingtin aggregation and initial lipid binding events.** *Biophysical chemistry*
  Stonebraker, A. R., Hankin, R., Kapp, K. L., Li, P., Valentine, S. J., Legleiter, J.
  2023; 303: 107123

- **PATHWAYS ASSOCIATED WITH POSITIVE SEPSIS SURVIVAL OUTCOMES IN AFRICAN AMERICAN/BLACK AND NON-HISPANIC WHITE PATIENTS WITH URINARY TRACT INFECTION** *SHOCK*
  Kapp, K. L., Choi, M., Bai, K., Du, L., Yende, S., Kellum, J. A., Angus, D. C., Peck-Palmer, O. M., Robinson, R. A. S.
  2023; 60 (3): 362-372

- **Incorporation of a Virtual Proteomics Module into the Undergraduate Analytical Curriculum** *JOURNAL OF CHEMICAL EDUCATION*
  Kapp, K. L., Robinson, R. A. S., Verberne-Sutton, S., Stepler, K. E.
  2023; 100 (8): 3124-3131

- **A Prospective Cohort Protocol for the Remnant Investigation in Sepsis Study** *Critical Care Explorations*
  Seymour, C. W., Urbanek, K. L., Nakayama, A., Kennedy, J. N., Powell, R., Robinson, R. A., Kapp, K. L., Billiar, T. R., Vodovotz, Y., Gelhaus, S. L., Cooper, V. S., Tang, L., Mayr, et al
  2023; 5 (11): e0974

- **Proteomic changes associated with racial background and sepsis survival outcomes.** *Molecular omics*
  Kapp, K. L., Arul, A. B., Zhang, K. C., Du, L., Yende, S., Kellum, J. A., Angus, D. C., Peck-Palmer, O. M., Robinson, R. A.
  2022; 18 (10): 923-937

- **Advancements in automation for plasma proteomics sample preparation.** *Molecular omics*
  King, C. D., Kapp, K. L., Arul, A. B., Choi, M. J., Robinson, R. A.
  2022; 18 (9): 828-839

- **Lipid Membranes Influence the Ability of Small Molecules To Inhibit Huntingtin Fibrillization.** *Biochemistry*
  Beasley, M., Stonebraker, A. R., Hasan, I., Kapp, K. L., Liang, B. J., Agarwal, G., Groover, S., Sedighi, F., Legleiter, J.
  2019; 58 (43): 4361-4373