

Stanford



Parag Mallick

Associate Professor (Research) of Radiology (Cancer Early Detection-Canary Center)

CONTACT INFORMATION

• Administrative Contact

Jamie Anderson - Administrative Associate

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Bio

ACADEMIC APPOINTMENTS

- Associate Professor (Research), Radiology
- Member, Bio-X
- Member, Stanford Cancer Institute
- Faculty Fellow, Stanford ChEM-H

PROFESSIONAL EDUCATION

- PostDoc, Institute for Systems Biology , Proteomics & Systems Biology Mentor: Ruedi Aebersold
- Ph.D., University of California, Los Angeles , Chemistry & Biochemistry Mentor: David Eisenberg
- B.S., Washington University in St. Louis , Computer Science & Biochemistry

LINKS

- My Lab's Website: <http://mallicklab.stanford.edu>
- ProteoWizard: <http://proteowizard.sourceforge.net>
- ImmunoGlobe: <http://www.immunoglobe.org>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

The Mallick lab focuses on translating multi-omic discovery into precision diagnostics. In particular we use tightly integrated computational and experimental, multi-omic approaches to discover the processes underlying how cells behave (or misbehave) and accordingly how cancers develop and grow. We hope that by exploring these processes, and by formalizing our knowledge in predictive mathematical models that we will be able to better identify biomarkers that can be used to detect cancers earlier and describe how they are likely to behave (e.g. aggressive vs indolent, drug sensitive vs responsive).

More specifically, we are working in three focus areas: Cancer Systems Biology, Multi-scale Biomarker Biology and Technology Development. Notably, many of the studies in our group are investigating fundamental physiological processes and thus are generally applicable to a range of cell-types and diseases.

Our group has also been leading the development of ProteoWizard, an open source set of libraries and tools to simplify the process of developing proteomics tools. They read and write the HUPO-PSI mzML standard and have been incorporated into the ISB's transproteomicpipeline!

For more information see <http://mallicklab.stanford.edu>

Teaching

COURSES

2016-17

- Essential Methods in Computational and Systems Immunology: IMMUNOL 207 (Spr)
- Mass Spectrometry and Proteomics: Opening the Black Box: BIOS 227 (Spr)
- Translational Bioinformatics: BIOE 217, BIOMEDIN 217, CS 275 (Win)
- Translational Bioinformatics: GENE 217 (Win)

2015-16

- Advanced Computational and Systems Immunology: IMMUNOL 208 (Aut)
- Essential Methods in Computational and Systems Immunology: IMMUNOL 207 (Spr)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

David Glass, Alice Yu

Doctoral Dissertation Advisor (AC)

Michelle Atallah

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Biomedical Informatics (Phd Program)
- Cancer Biology (Phd Program)
- Immunology (Phd Program)

Publications

PUBLICATIONS

- **A Bayesian Active Learning Experimental Design for Inferring Signaling Networks** *JOURNAL OF COMPUTATIONAL BIOLOGY*
Ness, R. O., Sachs, K., Mallick, P., Vitek, O.
2018
- **Towards Continuous Scientific Data Analysis and Hypothesis Evolution** *Thirty-First AAAI Conference on Artificial Intelligence*
Gil, Y., Garijo, D., Ratnakar, V., Mayani, R., Adusumilli, R., Boyce, H., Srivastava, A., Mallick, P.
- **Imitating Pathologist Based Assessment With Interpretable and Context Based Neural Network Modeling of Histology Images.** *Biomedical informatics insights*
Srivastava, A., Kulkarni, C., Huang, K., Parwani, A., Mallick, P., Machiraju, R.
2018; 10: 1178222618807481
- **The Impact of Microenvironmental Heterogeneity on the Evolution of Drug Resistance in Cancer Cells.** *Cancer informatics*
Mumenthaler, S. M., Foo, J., Choi, N. C., Heise, N., Leder, K., Agus, D. B., Pao, W., Michor, F., Mallick, P.
2015; 14: 19-31

- **Simulation of the Protein-Shedding Kinetics of a Fully Vascularized Tumor.** *Cancer informatics*
Frieboes, H. B., Curtis, L. T., Wu, M., Kani, K., Mallick, P.
2015; 14: 163-175
- **A cross-platform toolkit for mass spectrometry and proteomics** *NATURE BIOTECHNOLOGY*
Chambers, M. C., MacLean, B., Burke, R., Amodei, D., Ruderman, D. L., Neumann, S., Gatto, L., Fischer, B., Pratt, B., Egertson, J., Hoff, K., Kessner, D., Tasman, et al
2012; 30 (10): 918-920
- **Loss of ER retention motif of AGR2 can impact mTORC signaling and promote cancer metastasis** *ONCOGENE*
Tiemann, K., Garri, C., Lee, S., Malihi, P. D., Park, M., Alvarez, R. M., Yap, L., Ma, P., Katz, J. E., Gross, M. E., Kani, K.
2019; 38 (16): 3003-18
- **Improving Precursor Selectivity in Data-Independent Acquisition Using Overlapping Windows.** *Journal of the American Society for Mass Spectrometry*
Amodei, D., Egertson, J., MacLean, B. X., Johnson, R., Merrihew, G. E., Keller, A., Marsh, D., Vitek, O., Mallick, P., MacCoss, M. J.
2019
- **Semantic workflows for benchmark challenges: Enhancing comparability, reusability and reproducibility**
Srivastava, A., Adusumilli, R., Boyce, H., Garijo, D., Ratnakar, V., Mayani, R., Yu, T., Machiraju, R., Gil, Y., Mallick, P., Altman, R. B., Dunker, A. K., Hunter, et al
WORLD SCIENTIFIC PUBL CO PTE LTD.2019: 208-19
- **Loss of ER retention motif of AGR2 can impact mTORC signaling and promote cancer metastasis.** *Oncogene*
Tiemann, K., Garri, C., Lee, S. B., Malihi, P. D., Park, M., Alvarez, R. M., Yap, L. P., Mallick, P., Katz, J. E., Gross, M. E., Kani, K.
2018
- **Proteogenomic Analysis of Surgically Resected Lung Adenocarcinoma** *JOURNAL OF THORACIC ONCOLOGY*
Sharpnack, M. F., Ranbaduge, N., Srivastava, A., Cerciello, F., Codreanu, S. G., Liebler, D. C., Mascaux, C., Miles, W. O., Morris, R., McDermott, J. E., Sharpnack, J. L., Amann, J., Maher, et al
2018; 13 (10): 1519-29
- **Automated Hypothesis Testing with Large Scientific Data Repositories** *Annual Conference on Advances in Cognitive Systems*
Gil, Y., Garijo, D., Ratnakar, V., Mayani, R., Adusumilli, R., Boyce, H., Mallick, P.
- **A blood biomarker for monitoring response to anti-EGFR therapy.** *Cancer biomarkers : section A of Disease markers*
Hughes, N. P., Xu, L., Nielsen, C. H., Chang, E., Hori, S. S., Natarajan, A., Lee, S., Kjar, A., Kani, K., Wang, S. X., Mallick, P., Gambhir, S. S.
2018
- **A Bayesian Active Learning Experimental Design for Inferring Signaling Networks** *International Conference on Research in Computational Molecular Biology*
Ness, R., Sachs, K., Mallick, P., Vitek, O.
- **Improving Publication and Reproducibility of Computational Experiments through Workflow Abstractions.** *Workshop on Capturing Scientific Knowledge (SciKnow), held in conjunction with the ACM International Conference on Knowledge Capture (K-CAP)*
Gil, Y., Garijo, D., Knoblock, M., Deng, A., Adusumilli, R., Ratnakar, V., Mallick, P.
- **The Predictive Value of Inflammation-Related Peripheral Blood Measurements in Cancer Staging and Prognosis** *FRONTIERS IN ONCOLOGY*
Sylman, J. L., Mitrugno, A., Atallah, M., Tormoen, G. W., Shatzel, J. J., Yunga, S., Wagner, T. H., Leppert, J. T., Mallick, P., McCarty, O. T.
2018; 8: 78
- **Longitudinal Multiplexed Measurement of Quantitative Proteomic Signatures in Mouse Lymphoma Models Using Magneto-Nanosensors.** *Theranostics*
Lee, J. R., Appellmann, I., Miething, C., Shultz, T. O., Ruderman, D., Kim, D., Mallick, P., Lowe, S. W., Wang, S. X.
2018; 8 (5): 1389-98
- **A Temporal Examination of Platelet Counts as a Predictor of Prognosis in Lung, Prostate, and Colon Cancer Patients.** *Scientific reports*
Sylman, J. L., Boyce, H. B., Mitrugno, A., Tormoen, G. W., Thomas, I. C., Wagner, T. H., Lee, J. S., Leppert, J. T., McCarty, O. J., Mallick, P.
2018; 8 (1): 6564
- **Multi-lectin Affinity Chromatography and Quantitative Proteomic Analysis Reveal Differential Glycoform Levels between Prostate Cancer and Benign Prostatic Hyperplasia Sera.** *Scientific reports*

- Totten, S. M., Adusumilli, R., Kullolli, M., Tanimoto, C., Brooks, J. D., Mallick, P., Pitteri, S. J.
2018; 8 (1): 6509
- **Building trans-omics evidence: using imaging and 'omics' to characterize cancer profiles.** *Pacific Symposium on Biocomputing. Pacific Symposium on Biocomputing*
Srivastava, A., Kulkarni, C., Mallick, P., Huang, K., Machiraju, R.
2018; 23: 377–87
 - **Global Transcriptome Analysis of RNA Abundance Regulation by ADAR in Lung Adenocarcinoma.** *EBioMedicine*
Sharpnack, M. F., Chen, B., Aran, D., Kosti, I., Sharpnack, D. D., Carbone, D. P., Mallick, P., Huang, K.
2018; 27: 167–75
 - **How many human proteoforms are there?** *Nature chemical biology*
Aebersold, R., Agar, J. N., Amster, I. J., Baker, M. S., Bertozzi, C. R., Boja, E. S., Costello, C. E., Cravatt, B. F., Fenselau, C., Garcia, B. A., Ge, Y., Gunawardena, J., Hendrickson, et al
2018; 14 (3): 206–14
 - **JUN-Mediated downregulation of EGFR signaling is associated with resistance to gefitinib in EGFR-mutant NSCLC cell lines.** *Molecular cancer therapeutics*
Kani, K., Garri, C., Tiemann, K., Malihi, P. D., Punj, V., Nguyen, A. L., Lee, J., Hughes, L. D., Alvarez, R. M., Wood, D. M., Joo, A. Y., Katz, J. E., Agus, et al
2017
 - **Data Conversion with ProteoWizard msConvert.** *Methods in molecular biology (Clifton, N.J.)*
Adusumilli, R., Mallick, P.
2017; 1550: 339-368
 - **Cellular localization of ER chaperones may predict cancer patient prognosis.**
Tiemann, K., Garri, C., Lee, S., Malihi, P. D., Park, M., Alvarez, R., Yap, L., Conti, P. S., Mallick, P., Katz, J. E., Agus, D., Gross, M. E., Kani, et al
AMER SOC CELL BIOLOGY.2017
 - **A Bayesian Active Learning Experimental Design for Inferring Signaling Networks**
Ness, R., Sachs, K., Mallick, P., Vitek, O., Sahinalp, S. C.
SPRINGER-VERLAG BERLIN.2017: 134–56
 - **Assessing biological and technological variability in protein levels measured in pre-diagnostic plasma samples of women with breast cancer** *Biomarker Research*
Yeh, C. Y., Adusumilli, R., Kullolli, M., Mallick, P., John, E. M., Pitteri, S. J.
2017; 5: 30
 - **Longitudinal Monitoring of Antibody Responses against Tumor Cells Using Magneto-nanosensors with a Nanoliter of Blood.** *Nano letters*
Lee, J. R., Chan, C. T., Ruderman, D., Chuang, H. Y., Gaster, R. S., Atallah, M., Mallick, P., Lowe, S. W., Gambhir, S. S., Wang, S. X.
2017; 17 (11): 6644–52
 - **Assessing biological and technological variability in protein levels measured in pre-diagnostic plasma samples of women with breast cancer.** *Biomarker research*
Yeh, C. Y., Adusumilli, R., Kullolli, M., Mallick, P., John, E. M., Pitteri, S. J.
2017; 5: 30
 - **Platelet count as a predictor of metastasis and venous thromboembolism in patients with cancer.** *Convergent science physical oncology*
Sylman, J. L., Mitrugno, A., Tormoen, G. W., Wagner, T. H., Mallick, P., McCarty, O. J.
2017; 3 (2)
 - **A Robust Protocol for Protein Extraction and Digestion.** *Methods in molecular biology (Clifton, N.J.)*
Atallah, M., Flory, M. R., Mallick, P.
2017; 1550: 1-10
 - **Dual transcript and protein quantification in a massive single cell array.** *Lab on a chip*
Park, S., Lee, J. Y., Hong, S., Lee, S. H., Dimov, I. K., Lee, H., Suh, S., Pan, Q., Li, K., Wu, A. M., Mumenthaler, S. M., Mallick, P., Lee, et al
2016; 16 (19): 3682-3688
 - **Single cell dynamic phenotyping** *SCIENTIFIC REPORTS*

- Patsch, K., Chiu, C., Engeln, M., Agus, D. B., Mallick, P., Mumenthaler, S. M., Ruderman, D.
2016; 6
- **Protein biomarkers on tissue as imaged via MALDI mass spectrometry: A systematic approach to study the limits of detection** *PROTEOMICS*
van de Ven, S. M., Bemis, K. D., Lau, K., Adusumilli, R., Kota, U., Stolowitz, M., Vitek, O., Mallick, P., Gambhir, S. S.
2016; 16 (11-12): 1660-1669
 - **Epigenetic changes mediated by polycomb repressive complex 2 and E2a are associated with drug resistance in a mouse model of lymphoma** *GENOME MEDICINE*
Flinders, C., Lam, L., Rubbi, L., Ferrari, R., Fitz-Gibbon, S., Chen, P., Thompson, M., Christofk, H., Agus, D. B., Ruderman, D., Mallick, P., Pellegrini, M.
2016; 8
 - **Probabilistic Segmentation of Mass Spectrometry (MS) Images Helps Select Important Ions and Characterize Confidence in the Resulting Segments** *MOLECULAR & CELLULAR PROTEOMICS*
Bemis, K. D., Harry, A., Eberlin, L. S., Ferreira, C. R., van de Ven, S. M., Mallick, P., Stolowitz, M., Vitek, O.
2016; 15 (5): 1761-1772
 - **AshwaMAX and Withaferin A inhibits gliomas in cellular and murine orthotopic models** *JOURNAL OF NEURO-ONCOLOGY*
Chang, E., Pohling, C., Natarajan, A., Witney, T. H., Kaur, J., Xu, L., Gowrishankar, G., D'Souza, A. L., Murty, S., Schick, S., Chen, L., Wu, N., Khaw, et al
2016; 126 (2): 253-264
 - **AshwaMAX and Withaferin A inhibits gliomas in cellular and murine orthotopic models.** *Journal of neuro-oncology*
Chang, E., Pohling, C., Natarajan, A., Witney, T. H., Kaur, J., Xu, L., Gowrishankar, G., D'Souza, A. L., Murty, S., Schick, S., Chen, L., Wu, N., Khaw, et al
2016; 126 (2): 253-64
 - **A high-content image-based method for quantitatively studying context-dependent cell population dynamics.** *Scientific reports*
Garvey, C. M., Spiller, E., Lindsay, D., Chiang, C., Choi, N. C., Agus, D. B., Mallick, P., Foo, J., Mumenthaler, S. M.
2016; 6: 29752-?
 - **NEW HORIZONS IN INTACT PROTEIN ANALYSIS: OPTIMIZATION OF TOP-DOWN PROTEIN ANALYSIS** *CHEMICAL & ENGINEERING NEWS*
Sharma, S., Mallick, P., Stoyanova, T., Mullen, C., Weisbrod, C., Canterbury, J., Horn, D., Zabrouskov, V.
2015: 12-14
 - **A fully human scFv phage display library for rapid antibody fragment reformatting** *PROTEIN ENGINEERING DESIGN & SELECTION*
Li, K., Zettlitz, K. A., Lipianskaya, J., Zhou, Y., Marks, J. D., Mallick, P., Reiter, R. E., Wu, A. M.
2015; 28 (10): 307-315
 - **Cardinal: an R package for statistical analysis of mass spectrometry-based imaging experiments.** *Bioinformatics*
Bemis, K. D., Harry, A., Eberlin, L. S., Ferreira, C., van de Ven, S. M., Mallick, P., Stolowitz, M., Vitek, O.
2015; 31 (14): 2418-2420
 - **Cardinal: an R package for statistical analysis of mass spectrometry-based imaging experiments** *BIOINFORMATICS*
Bemis, K. D., Harry, A., Eberlin, L. S., Ferreira, C., van de Ven, S. M., Mallick, P., Stolowitz, M., Vitek, O.
2015; 31 (14): 2418-2420
 - **Predictive Modeling of Drug Response in Non-Hodgkin's Lymphoma** *PLOS ONE*
Frieboes, H. B., Smith, B. R., Wang, Z., Kotsuma, M., Ito, K., Day, A., Cahill, B., Flinders, C., Mumenthaler, S. M., Mallick, P., Simbawa, E., Al-Fhaid, A. S., Mahmoud, et al
2015; 10 (6)
 - **Neuronal Activity Promotes Glioma Growth through Neuroligin-3 Secretion** *CELL*
Venkatesh, H. S., Johung, T. B., Caretti, V., Noll, A., Tang, Y., Nagaraja, S., Gibson, E. M., Mount, C. W., Polepalli, J., Mitra, S. S., Woo, P. J., Malenka, R. C., Vogel, et al
2015; 161 (4): 803-816
 - **Building high-quality assay libraries for targeted analysis of SWATH MS data.** *Nature protocols*
Schubert, O. T., Gillet, L. C., Collins, B. C., Navarro, P., Rosenberger, G., Wolski, W. E., Lam, H., Amodei, D., Mallick, P., MacLean, B., Aebersold, R.
2015; 10 (3): 426-441
 - **Predictive Modeling of Drug Response in Non-Hodgkin's Lymphoma.** *PloS one*

- Frieboes, H. B., Smith, B. R., Wang, Z., Kotsuma, M., Ito, K., Day, A., Cahill, B., Flinders, C., Mumenthaler, S. M., Mallick, P., Simbawa, E., Al-Fhaid, A. S., Mahmoud, et al
2015; 10 (6)
- **Anti-MET ImmunoPET for Non-Small Cell Lung Cancer Using Novel Fully Human Antibody Fragments** *MOLECULAR CANCER THERAPEUTICS*
Li, K., Tavaré, R., Zettlitz, K. A., Mumenthaler, S. M., Mallick, P., Zhou, Y., Marks, J. D., Wu, A. M.
2014; 13 (11): 2607-2617
 - **Anti-MET immunoPET for non-small cell lung cancer using novel fully human antibody fragments.** *Molecular cancer therapeutics*
Li, K., Tavaré, R., Zettlitz, K. A., Mumenthaler, S. M., Mallick, P., Zhou, Y., Marks, J. D., Wu, A. M.
2014; 13 (11): 2607-2617
 - **Employing ProteoWizard to Convert Raw Mass Spectrometry Data.** *Current protocols in bioinformatics / editorial board, Andreas D. Baxevanis ... [et al.]*
Holman, J. D., Tabb, D. L., Mallick, P.
2014; 46: 13 24 1-9
 - **Characterizing deformability and surface friction of cancer cells.** *Proceedings of the National Academy of Sciences of the United States of America*
Byun, S., Son, S., Amodei, D., Cermak, N., Shaw, J., Kang, J. H., Hecht, V. C., Winslow, M. M., Jacks, T., Mallick, P., Manalis, S. R.
2013; 110 (19): 7580-7585
 - **A physical sciences network characterization of non-tumorigenic and metastatic cells** *SCIENTIFIC REPORTS*
Agus, D. B., Alexander, J. F., Arap, W., Ashili, S., Aslan, J. E., Austin, R. H., Backman, V., Bethel, K. J., Bonneau, R., Chen, W., Chen-Tanyolac, C., Choi, N. C., Curley, et al
2013; 3
 - **Anterior gradient 2 (AGR2): Blood-based biomarker elevated in metastatic prostate cancer associated with the neuroendocrine phenotype** *PROSTATE*
Kani, K., Malihi, P. D., Jiang, Y., Wang, H., Wang, Y., Ruderman, D. L., Agus, D. B., Mallick, P., Gross, M. E.
2013; 73 (3): 306-315
 - **Concurrent Transcript and Protein Quantification in a Massive Single Cell Array Enables Population-Wide Observation of Oncogene Escape** *57th Annual Meeting of the Biophysical-Society*
Park, S., Lee, J. Y., Hong, S., Dimov, I. K., Li, K., Wu, A. M., Mumenthaler, S., Mallick, P., Lee, L. P.
CELL PRESS.2013: 686A-686A
 - **Unexpected Dissemination Patterns in Lymphoma Progression Revealed by Serial Imaging within a Murine Lymph Node** *CANCER RESEARCH*
Ito, K., Smith, B. R., Parashurama, N., Yoon, J., Song, S. Y., Miething, C., Mallick, P., Lowe, S., Gambhir, S. S.
2012; 72 (23): 6111-6118
 - **Quantitative Proteomic Profiling Identifies Protein Correlates to EGFR Kinase Inhibition** *MOLECULAR CANCER THERAPEUTICS*
Kani, K., Faca, V. M., Hughes, L. D., Zhang, W., Fang, Q., Shahbaba, B., Luethy, R., Erde, J., Schmidt, J., Pitteri, S. J., Zhang, Q., Katz, J. E., Gross, et al
2012; 11 (5): 1071-1081
 - **Investigation of acquired resistance to EGFR-targeted therapies in lung cancer using cDNA microarrays.** *Methods in molecular biology (Clifton, N.J.)*
Kani, K., Sordella, R., Mallick, P.
2012; 795: 233-253
 - **Cancer as a Multi-scale Complex Adaptive System** *Assessment Of Physical Sciences And Engineering Advances In Life Sciences And Oncology (Aphelion) In Europe*
Parag Mallick
2012: 4-21
 - **Installation and use of LabKey Server for proteomics.** *Current protocols in bioinformatics / editorial board, Andreas D. Baxevanis ... [et al.]*
Eckels, J., Hussey, P., Nelson, E. K., Myers, T., Rauch, A., Bellew, M., Connolly, B., Law, W., Eng, J. K., Katz, J., McIntosh, M., Mallick, P., Igra, et al
2011; Chapter 13: Unit 13 5-?
 - **Evolutionary Modeling of Combination Treatment Strategies To Overcome Resistance to Tyrosine Kinase Inhibitors in Non-Small Cell Lung Cancer** *MOLECULAR PHARMACEUTICS*
Mumenthaler, S. M., Foo, J., Leder, K., Choi, N. C., Agus, D. B., Pao, W., Mallick, P., Michor, F.
2011; 8 (6): 2069-2079
 - **A High-Confidence Human Plasma Proteome Reference Set with Estimated Concentrations in PeptideAtlas** *MOLECULAR & CELLULAR PROTEOMICS*

- Farrah, T., Deutsch, E. W., Omenn, G. S., Campbell, D. S., Sun, Z., Bletz, J. A., Mallick, P., Katz, J. E., Malmstroem, J., Ossola, R., Watts, J. D., Lin, B., Zhang, et al
2011; 10 (9)
- **Impact of Protein Stability, Cellular Localization, and Abundance on Proteomic Detection of Tumor-Derived Proteins in Plasma** *PLOS ONE*
Fang, Q., Kani, K., Faca, V. M., Zhang, W., Zhang, Q., Jain, A., Hanash, S., Agus, D. B., McIntosh, M. W., Mallick, P.
2011; 6 (7)
 - **Applying Multi-Agent Techniques to Cancer Modeling** *Proceedings of the Sixth Workshop on Multiagent Sequential Decision Making in Uncertain Domains*
Brown M, Bowring Epstein S, Maheswaran R, Mallick P, Tambe M.
2011
 - **Interactively Mapping Data Sources into the Semantic Web** *Proceedings of The First International Symposium on Linked Science*
Knoblock C, Szekeley P, Ambite JL, Gupta S, Aman Goel, Muslea M, Lerman K, Mallick P
2011; 783
 - **Model-based discovery of circulating biomarkers.** *Methods in molecular biology (Clifton, N.J.)*
Vogelsang, M. S., Kani, K., Katz, J. E., Mallick, P.
2011; 728: 87-107
 - **Peptide Identification from Mixture Tandem Mass Spectra** *MOLECULAR & CELLULAR PROTEOMICS*
Wang, J., Perez-Santiago, J., Katz, J. E., Mallick, P., Bandeira, N.
2010; 9 (7): 1476-1485
 - **Proteomics: a pragmatic perspective** *NATURE BIOTECHNOLOGY*
Mallick, P., Kuster, B.
2010; 28 (7): 695-709
 - **Mass spectrometry based proteomics in cancer research** *Modern Molecular Biology: Approaches for Unbiased Discovery in Cancer Research*
Abbani M, Mallick P, Vogelsang M
2010: 117-156
 - **Recommendations from the 2008 International Summit on Proteomics Data Release and Sharing Policy: The Amsterdam Principles** *JOURNAL OF PROTEOME RESEARCH*
Rodriguez, H., Snyder, M., Uhlen, M., Andrews, P., Beavis, R., Borchers, C., Chalkley, R. J., Cho, S. Y., Cottingham, K., Dunn, M., Dylag, T., Edgar, R., Hare, et al
2009; 8 (7): 3689-3692
 - **ProteoWizard: open source software for rapid proteomics tools development** *BIOINFORMATICS*
Kessner, D., Chambers, M., Burke, R., Agusand, D., Mallick, P.
2008; 24 (21): 2534-2536
 - **Halobacterium salinarum NRC-1 PeptideAtlas: Toward strategies for targeted proteomics and improved proteome coverage** *JOURNAL OF PROTEOME RESEARCH*
Van, P. T., Schmid, A. K., King, N. L., Kaur, A., Pan, M., Whitehead, K., Koide, T., Facciotti, M. T., Goo, Y. A., Deutsch, E. W., Reiss, D. J., Mallick, P., Baliga, et al
2008; 7 (9): 3755-3764
 - **Precursor-ion mass re-estimation improves peptide identification on hybrid instruments** *JOURNAL OF PROTEOME RESEARCH*
Luethy, R., Kessner, D. E., Katz, J. E., McLean, B., Grothe, R., Kani, K., Faca, V., Pitteri, S., Hanash, S., Agus, D. B., Mallick, P.
2008; 7 (9): 4031-4039
 - **The standard protein mix database: A diverse data set to assist in the production of improved peptide and protein identification software tools** *JOURNAL OF PROTEOME RESEARCH*
Klimek, J., Eddes, J. S., Hohmann, L., Jackson, J., Peterson, A., Letarte, S., Gafken, P. R., Katz, J. E., Mallick, P., Lee, H., Schmidt, A., Ossola, R., Eng, et al
2008; 7 (1): 96-103
 - **Computational prediction of proteotypic peptides for quantitative proteomics.** *Nature biotechnology*
Mallick, P., Schirle, M., Chen, S. S., Flory, M. R., Lee, H., Martin, D., Ranish, J., Raught, B., Schmitt, R., Werner, T., Kuster, B., Aebersold, R.
2007; 25 (1): 125-131

- **eComputational prediction of proteotypic peptides for quantitative proteomics** *NATURE BIOTECHNOLOGY*
Mallick, P., Schirle, M., Chen, S. S., Flory, M. R., Lee, H., Martin, D., Raught, B., Schmitt, R., Werner, T., Kuster, B., Aebersold, R.
2007; 25 (1): 125-131
- **Quantitative proteomic analysis of the budding yeast cell cycle using acid-cleavable isotope-coded affinity tag reagents** *PROTEOMICS*
Flory, M. R., Lee, H., Bonneau, R., Mallick, P., Serikawa, K., Morris, D. R., Aebersold, R.
2006; 6 (23): 6146-6157
- **Protein cross-linking analysis using mass spectrometry, isotope-coded cross-linkers, and integrated computational data processing** *JOURNAL OF PROTEOME RESEARCH*
Seebacher, J., Mallick, P., Zhang, N., Eddes, J. S., Aebersold, R., Gelb, M. H.
2006; 5 (9): 2270-2282
- **Mutagenesis of putative serine-threonine phosphorylation sites proximal to Arg255 of human cytochrome P450c17 does not selectively promote its 17,20-lyase activity** *FERTILITY AND STERILITY*
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