



Andrew Gentles

Associate Professor (Research) of Pathology, of Medicine (Computational Medicine) and, by courtesy, of Biomedical Data Science

Bio

BIO

BSc (Hons) Physics, University of Manchester, UK

PhD Theoretical particle physics, University of Southampton, UK

ACADEMIC APPOINTMENTS

- Associate Professor (Research), Pathology
- Associate Professor (Research), Computational Medicine
- Associate Professor (Research) (By courtesy), Department of Biomedical Data Science
- Member, Bio-X
- Member, Cardiovascular Institute
- Member, Stanford Cancer Institute
- Member, Wu Tsai Neurosciences Institute

LINKS

- Google scholar: https://scholar.google.com/citations?user=6JO_L6wAAAAJ&hl=en
- Lab website: <http://ajglab.org>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Computational systems biology

Teaching

COURSES

2025-26

- Machine Learning Approaches for Data Fusion in Biomedicine: BMDS 221 (Aut)

2024-25

- Machine Learning Approaches for Data Fusion in Biomedicine: BIODS 221, BIOMEDIN 221 (Aut)

2023-24

- Machine Learning Approaches for Data Fusion in Biomedicine: BIODS 221, BIOMEDIN 221 (Aut)

2022-23

- Machine Learning Approaches for Data Fusion in Biomedicine: BIODS 221, BIOMEDIN 221 (Aut)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Jake Chang, Jeremy D'Silva, Rachel Gleyzer, Claudia Leonard, Kevin Liu, Shuaitong Liu, Emily Shen

Orals Chair

Minji Kang

Postdoctoral Faculty Sponsor

Brendan Ball, Ruohan Wang

Doctoral Dissertation Advisor (AC)

Ilayda Ilertem, Imani Porter

Master's Program Advisor

Ryan D'Cunha, Karen Flores Cano

Doctoral Dissertation Co-Advisor (AC)

Emma Heaton

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Biomedical Data Science (Masters Program)
- Biomedical Data Science (Phd Program)
- Cancer Biology (Phd Program)
- Immunology (Phd Program)

Publications

PUBLICATIONS

- **Non-invasive profiling of the tumour microenvironment with spatial ecotypes.** *Nature*
Zhang, W., Brown, E. L., Usmani, A., Earland, N., Kang, M., Olelewe, C., Viswanathan, A., Chauhan, P. S., Steen, C. B., Jeon, H. S., Avagyan, S., Alahi, I., Semenkovich, et al
2026
- **Liquid biopsy profiling of the tumor microenvironment to determine response to immunotherapy regimens across solid tumors.**
Brown, E. L., Zhang, W., Usmani, A., Earland, N., Hashmi, A., Olelewe, C., Viswanathan, A., Chauhan, P. S., Kang, M., Steen, C. B., Jeon, H., Avagyan, S., Alahi, et al
AMER ASSOC CANCER RESEARCH.2026: 94
- **Lymph node colonization induces tissue remodeling via immunosuppressive fibroblast-myeloid cell niches supporting metastatic tolerance.** *Cancer cell*
Haist, M., Baertsch, M. A., Reticker-Flynn, N. E., Lu, G., Kempchen, T. N., Chu, P., Vazquez, G., Chen, H., Sunwoo, J. B., Zhang, W., Laseinde, E., Adami, B., Zimmer, et al
2026
- **The ADAPT learning cancer treatment system: ARPA-H's initiative to revolutionize cancer therapy.** *Cancer cell*
Bild, A. H., Sangar, M. C., McQuerry, J. A., Ideker, T., Kopetz, S., Carey, L., Nath, A., Marcus, D., Regier, A., Rashid, N., Barzilay, R., Winer, E., Salgia, et al
2026

- **PRECOG update: an augmented resource of clinical outcome associations with gene expression for adult, pediatric, and immunotherapy cohorts.** *Nucleic acids research*
Benard, B. A., Lalgudi, C. K., Ilertsen, I., Wang, R. H., Gentles, A. J.
2025
- **Loss of enhancers LMO2 induced transdifferentiation of B-cells to T-cell acute leukemia**
Lossos, I. S., Aumann, S., Gentles, A., Vega, F., Vicente-Duenas, C., Huang, H., Terryn, R., Satta, S., Benard, B., Verdun, R., Sanchez-Garcia, I., Bilbao, D.
ELSEVIER.2025: 142-143
- **Inhibition of DOCK1 prevents the clonal expansion of high-risk TP53-mutant clonal hematopoiesis induced by genotoxic stressors**
Feng, Y., Koehnke, T., Patrick, B., Benard, B., Kayamori, K., Heaton, E., Collins, C., Chavez, J., Zhang, T., Gentles, A., Majeti, R.
ELSEVIER.2025: 631-632
- **CD27 agonist antibodies mediate clinical responses through intratumoral stimulation in B-cell malignancies: multicenter RiVa trial.** *Clinical cancer research : an official journal of the American Association for Cancer Research*
Buermann, L. E., Stanton, L., Rose-Zerilli, M. J., Thorne, K., Coleman, A., Turaj, A. H., Caddy, J., Wignall, C., Keyworth, N., Konn, Z., McKay, P., Osborne, W., Linton, et al
2025
- **A single-cell framework identifies functionally and molecularly distinct multipotent progenitors in adult human hematopoiesis.** *Cell reports*
Ediriwickrema, A., Nakauchi, Y., Fan, A. C., Köhnke, T., Hu, X., Luca, B. A., Kim, Y., Ramakrishnan, S., Nakamoto, M., Karigane, D., Linde, M. H., Azizi, A., Newman, et al
2025; 44 (9): 116236
- **The immune microenvironment of transplant glomerulitis** *Kidney International Reports*
Bracey, N., Maltzman, J., Long, A., Dhanasekaran, R., Shankar, V., Mohsin, A., Kambham, N., Wernig, G., Gentles, A., Davis, M., Charu, V.
2025: 3113-3127
- **Distinct type I and II interferon responses direct cortical and medullary thymic epithelial cell development.** *Science immunology*
Mohammed, A., Wang, W., Arreola, M., Solomon, B. D., Slepicka, P. F., Hubka, K. M., Nguyen, H. D., Zheng, Z., Chavez, M. G., Yeh, C. Y., Kim, D. K., Ma, M. R., Martin, et al
2025; 10 (107): eado4720
- **An ultrasensitive method for detection of cell-free RNA.** *Nature*
Nesselbush, M. C., Luca, B. A., Jeon, Y. J., Jabara, I., Meador, C. B., Garofalo, A., Binkley, M. S., Hui, A. B., van 't Erve, I., Xu, N., Shi, W. Y., Liu, K. J., Sugio, et al
2025
- **A multi-institutional phase 1 clinical trial exploring upfront multimodal standard of care and combined immunotherapies for newly diagnosed glioblastoma.** *Neuro-oncology*
Wen, P. Y., Manzanera, A., Duault, C., Gonzalez-Kozlova, E., Lopez, L., Grossman, S. A., Ye, X., Fisher, J., Lee, I., Walbert, T., Snyder, J., Brem, S., Desai, et al
2025
- **Ten challenges and opportunities in computational immuno-oncology.** *Journal for immunotherapy of cancer*
Bao, R., Hutson, A., Madabhushi, A., Jonsson, V. D., Rosario, S. R., Barnholtz-Sloan, J. S., Fertig, E. J., Marathe, H., Harris, L., Altreuter, J., Chen, Q., Dignam, J., Gentles, et al
2024; 12 (10)
- **Community assessment of methods to deconvolve cellular composition from bulk gene expression.** *Nature communications*
White, B. S., de Reyniès, A., Newman, A. M., Waterfall, J. J., Lamb, A., Petitprez, F., Lin, Y., Yu, R., Guerrero-Gimenez, M. E., Domanskyi, S., Monaco, G., Chung, V., Banerjee, et al
2024; 15 (1): 7362
- **IDENTIFICATION AND CHARACTERIZATION OF NEW MULTIPOTENT PROGENITORS IN ADULT HUMAN HEMATOPOIESIS**
Ediriwickrema, A., Nakauchi, Y., Fan, A., Köhnke, T., Hu, X., Luca, B., Kim, Y., Ramakrishnan, S., Nakamoto, M., Karigane, D., Linde, M., Azizi, A., Newman, et al
ELSEVIER SCIENCE INC.2024
- **AML/T cell interactomics uncover correlates of patient outcomes and the key role of ICAM1 in T cell killing of AML.** *Leukemia*

- Sayitoglu, E. C., Luca, B. A., Boss, A. P., Thomas, B. C., Freeborn, R. A., Uyeda, M. J., Chen, P. P., Nakauchi, Y., Waichler, C., Lacayo, N., Bacchetta, R., Majeti, R., Gentles, et al
2024
- **Endometrioid Endometrial RNA Index Predicts Recurrence in Stage I Patients.** *Clinical cancer research : an official journal of the American Association for Cancer Research*
Nief, C. A., Hammer, P. M., Wang, A., Charu, V., Tanweer, A., Litkouhi, B., Kidd, E., Gentles, A. J., Howitt, B. E.
2024
 - **Mutation order in acute myeloid leukemia identifies uncommon patterns of evolution and illuminates phenotypic heterogeneity.** *Leukemia*
Schwede, M., Jahn, K., Kuipers, J., Miles, L. A., Bowman, R. L., Robinson, T., Furudate, K., Uryu, H., Tanaka, T., Sasaki, Y., Ediriwickrema, A., Benard, B., Gentles, et al
2024
 - **Single Cell Spatial Biology for Precision Cancer Medicine.** *Pacific Symposium on Biocomputing. Pacific Symposium on Biocomputing*
Gentles, A. J., Nirmal, A. J., Heiser, L. M., Lundberg, E., Newman, A. M.
2023; 28: 549-553
 - **Loss of p53-DREAM-mediated repression of cell cycle genes as a driver of lymph node metastasis in head and neck cancer.** *Genome medicine*
Brennan, K., Espin-Perez, A., Chang, S., Bedi, N., Saumyaa, S., Shin, J. H., Plevritis, S. K., Gevaert, O., Sunwoo, J. B., Gentles, A. J.
2023; 15 (1): 98
 - **Translatome analysis reveals microglia and astrocytes to be distinct regulators of inflammation in the hyperacute and acute phases after stroke.** *Glia*
Hernandez, V. G., Lechtenberg, K. J., Peterson, T. C., Zhu, L., Lucas, T. A., Bradshaw, K. P., Owah, J. O., Dorsey, A. I., Gentles, A. J., Buckwalter, M. S.
2023
 - **Multimodal data fusion for cancer biomarker discovery with deep learning.** *Nature machine intelligence*
Steyaert, S., Pizurica, M., Nagaraj, D., Khandelwal, P., Hernandez-Boussard, T., Gentles, A. J., Gevaert, O.
2023; 5 (4): 351-362
 - **Profiling Cellular Ecosystems at Single-Cell Resolution and at Scale with EcoTyper.** *Methods in molecular biology (Clifton, N.J.)*
Steen, C. B., Luca, B. A., Alizadeh, A. A., Gentles, A. J., Newman, A. M.
2023; 2629: 43-71
 - **High-resolution alignment of single-cell and spatial transcriptomes with CytoSPACE.** *Nature biotechnology*
Vahid, M. R., Brown, E. L., Steen, C. B., Zhang, W., Jeon, H. S., Kang, M., Gentles, A. J., Newman, A. M.
2023
 - **Single cell genomics in AML: extending the frontiers of AML research.** *Blood*
Ediriwickrema, A., Gentles, A. J., Majeti, R.
2022
 - **Peripheral blood DNA methylation profiles predict future development of B-cell Non-Hodgkin Lymphoma.** *NPJ precision oncology*
Espin-Perez, A., Brennan, K., Ediriwickrema, A. S., Gevaert, O., Lossos, I. S., Gentles, A. J.
2022; 6 (1): 53
 - **Identification of cell types in multiplexed in situ images by combining protein expression and spatial information using CELESTA.** *Nature methods*
Zhang, W., Li, I., Reticker-Flynn, N. E., Good, Z., Chang, S., Samusik, N., Saumyaa, S., Li, Y., Zhou, X., Liang, R., Kong, C. S., Le, Q., Gentles, et al
2022
 - **Lymph node colonization induces tumor-immune tolerance to promote distant metastasis.** *Cell*
Reticker-Flynn, N. E., Zhang, W., Belk, J. A., Basto, P. A., Escalante, N. K., Pilarowski, G. O., Bejnood, A., Martins, M. M., Kenkel, J. A., Linde, I. L., Bagchi, S., Yuan, R., Chang, et al
2022
 - **NSD1 mutations deregulate transcription and DNA methylation of bivalent developmental genes in Sotos syndrome.** *Human molecular genetics*

- Brennan, K., Zheng, H., Fahrner, J. A., Shin, J. H., Gentles, A. J., Schaefer, B., Sunwoo, J. B., Bernstein, J. A., Gevaert, O.
2022
- **Clonal architecture predicts clinical outcomes and drug sensitivity in acute myeloid leukemia.** *Nature communications*
Benard, B. A., Leak, L. B., Azizi, A., Thomas, D., Gentles, A. J., Majeti, R.
1800; 12 (1): 7244
 - **High-grade serous ovarian tumor cells modulate NK cell function to create an immune-tolerant microenvironment.** *Cell reports*
Gonzalez, V. D., Huang, Y., Delgado-Gonzalez, A., Chen, S., Donoso, K., Sachs, K., Gentles, A. J., Allard, G. M., Kolahi, K. S., Howitt, B. E., Porpiglia, E., Fantl, W. J.
2021; 36 (9): 109632
 - **Landscape of innate lymphoid cells in human head and neck cancer reveals divergent NK cell states in the tumor microenvironment.** *Proceedings of the National Academy of Sciences of the United States of America*
Moreno-Nieves, U. Y., Tay, J. K., Saumyaa, S., Horowitz, N. B., Shin, J. H., Mohammad, I. A., Luca, B., Mundy, D. C., Gulati, G. S., Bedi, N., Chang, S., Chen, C., Kaplan, et al
2021; 118 (28)
 - **Transient rest restores functionality in exhausted CAR-T cells through epigenetic remodeling.** *Science (New York, N.Y.)*
Weber, E. W., Parker, K. R., Sotillo, E., Lynn, R. C., Anbunathan, H., Lattin, J., Good, Z., Belk, J. A., Daniel, B., Klysz, D., Malipatlolla, M., Xu, P., Bashti, et al
2021; 372 (6537)
 - **Prognostic Gene Expression, Stemness and Immune Microenvironment in Pediatric Tumors.** *Cancers*
Stahl, D., Knoll, R., Gentles, A. J., Vokuhl, C., Bunes, A., Gutgemann, I.
2021; 13 (4)
 - **HGAL inhibits lymphoma dissemination by interacting with multiple Cytoskeletal proteins.** *Blood advances*
Jiang, X., Lu, X., Gentles, A. J., Zhao, D., Wander, S. A., Zhang, Y., Natkunam, Y., Slingerland, J., Reis, I. M., Rabinovich, B., Abdulreda, M. H., Moy, V. T., Lossos, et al
2021
 - **The landscape of tumor cell states and ecosystems in diffuse large B cell lymphoma.** *Cancer cell*
Steen, C. B., Luca, B. A., Esfahani, M. S., Azizi, A., Sworder, B. J., Nabet, B. Y., Kurtz, D. M., Liu, C. L., Khameneh, F., Advani, R. H., Natkunam, Y., Myklebust, J. H., Diehn, et al
2021
 - **Atlas of clinically distinct cell states and ecosystems across human solid tumors.** *Cell*
Luca, B. A., Steen, C. B., Matusiak, M., Azizi, A., Varma, S., Zhu, C., Przybyl, J., Espín-Pérez, A., Diehn, M., Alizadeh, A. A., van de Rijn, M., Gentles, A. J., Newman, et al
2021
 - **Conditional expression of HGAL leads to the development of diffuse large B-cell lymphoma in mice.** *Blood*
Raboso-Gallego, J., Casado-Garcia, A., Jiang, X., Isidro-Hernandez, M., Gentles, A. J., Zhao, S., Natkunam, Y., Blanco, O., Dominguez, V., Pintado, B., De Las Rivas, J., Alonso-Lopez, D., Vicente-Duenas, et al
2020
 - **Maternal Anti-Dengue IgG Fucosylation Predicts Susceptibility to Dengue Disease in Infants.** *Cell reports*
Thulin, N. K., Brewer, R. C., Sherwood, R., Bournazos, S., Edwards, K. G., Ramadoss, N. S., Taubenberger, J. K., Memoli, M., Gentles, A. J., Jagannathan, P., Zhang, S., Libraty, D. H., Wang, et al
2020; 31 (6): 107642
 - **CRISPR screens in cancer spheroids identify 3D growth-specific vulnerabilities.** *Nature*
Han, K., Pierce, S. E., Li, A., Spees, K., Anderson, G. R., Seoane, J. A., Lo, Y. H., Dubreuil, M., Olivas, M., Kamber, R. A., Wainberg, M., Kostyrko, K., Kelly, et al
2020; 580 (7801): 136-141
 - **MYC and Twist1 cooperate to drive metastasis by eliciting crosstalk between cancer and innate immunity.** *eLife*
Dhanasekaran, R., Baylot, V., Kim, M., Kuruvilla, S., Bellouin, D. I., Adeniji, N., Rajan Kd, A., Lai, I., Gabay, M., Tong, L., Krishnan, M., Park, J., Hu, et al
2020; 9

- **Multiomic single cell analysis of normal human bone marrow identifies a unique stem and progenitor population that expands in AML** *Proceedings of the Annual Meeting of the American Association for Cancer Research 2020*
Ediriwickrema, A., Ramakrishnan, S., Nakamoto, M., Ghanekar, S., Luca, B., Newman, A., Gentles, A., Majeti, R.
2020
- **A human lung tumor microenvironment interactome identifies clinically relevant cell-type cross-talk.** *Genome biology*
Gentles, A. J., Hui, A. B., Feng, W. n., Azizi, A. n., Nair, R. V., Bouchard, G. n., Knowles, D. A., Yu, A. n., Jeong, Y. n., Bejnood, A. n., Forgó, E. n., Varma, S. n., Xu, et al
2020; 21 (1): 107
- **The Immune Landscape of Cancer.** *Immunity*
Thorsson, V., Gibbs, D. L., Brown, S. D., Wolf, D., Bortone, D. S., Ou Yang, T., Porta-Pardo, E., Gao, G. F., Plaisier, C. L., Eddy, J. A., Ziv, E., Culhane, A. C., Paull, et al
2019; 51 (2): 411–12
- **LMO2 Confers Synthetic Lethality to PARP Inhibition in DLBCL.** *Cancer cell*
Parvin, S., Ramirez-Labrada, A., Aumann, S., Lu, X., Weich, N., Santiago, G., Cortizas, E. M., Sharabi, E., Zhang, Y., Sanchez-Garcia, I., Gentles, A. J., Roberts, E., Bilbao-Cortes, et al
2019
- **Determining cell type abundance and expression from bulk tissues with digital cytometry** *NATURE BIOTECHNOLOGY*
Newman, A. M., Steen, C. B., Liu, C., Gentles, A. J., Chaudhuri, A. A., Scherer, F., Khodadoust, M. S., Esfahani, M. S., Luca, B. A., Steiner, D., Diehn, M., Alizadeh, A. A.
2019; 37 (7): 773+
- **Targetable genetic alterations of TCF4 (E2-2) drive immunoglobulin expression in diffuse large B cell lymphoma.** *Science translational medicine*
Jain, N., Hartert, K., Tadros, S., Fiskus, W., Havranek, O., Ma, M. C., Bouska, A., Heavican, T., Kumar, D., Deng, Q., Moore, D., Pak, C., Liu, et al
2019; 11 (497)
- **Data mining for mutation-specific targets in acute myeloid leukemia** *LEUKEMIA*
Benard, B., Gentles, A. J., Kohnke, T., Majeti, R., Thomas, D.
2019; 33 (4): 826–43
- **Determining cell type abundance and expression from bulk tissues with digital cytometry.** *Nature biotechnology*
Newman, A. M., Steen, C. B., Liu, C. L., Gentles, A. J., Chaudhuri, A. A., Scherer, F. n., Khodadoust, M. S., Esfahani, M. S., Luca, B. A., Steiner, D. n., Diehn, M. n., Alizadeh, A. A.
2019
- **Prognostic profiling of the immune cell microenvironment in Ewings Sarcoma Family of Tumors.** *Oncoimmunology*
Stahl, D., Gentles, A. J., Thiele, R., Gutgemann, I.
2019; 8 (12): e1674113
- **Comprehensive analysis of cancer stemness**
Malta, T. M., Sokolov, A., Gentles, A. J., Burzykowski, T., Poisson, L., Weinstein, J., Kaminska, B., Huelsken, J., Omberg, L., Gevaert, O., Colaprico, A., Czerwinska, P., Mazurek, et al
AMER ASSOC CANCER RESEARCH.2018
- **GFPT2-expressing cancer-associated fibroblasts mediate metabolic reprogramming in human lung adenocarcinoma.** *Cancer research*
Zhang, W., Bouchard, G., Yu, A., Shafiq, M., Jamali, M., Shrager, J. B., Ayers, K., Bakr, S., Gentles, A. J., Diehn, M., Quon, A., West, R. B., Nair, et al
2018
- **The Immune Landscape of Cancer** *IMMUNITY*
Thorsson, V., Gibbs, D. L., Brown, S. D., Wolf, D., Bortone, D. S., Yang, T., Porta-Pardo, E., Gao, G. F., Plaisier, C. L., Eddy, J. A., Ziv, E., Culhane, A. C., Paull, et al
2018; 48 (4): 812+
- **Machine Learning Identifies Stemness Features Associated with Oncogenic Dedifferentiation** *CELL*
Malta, T. M., Sokolov, A., Gentles, A. J., Burzykowski, T., Poisson, L., Weinstein, J. N., Kaminska, B., Huelsken, J., Omberg, L., Gevaert, O., Colaprico, A., Czerwinska, P., Mazurek, et al
2018; 173 (2): 338+

- **Subtype assignment of CLL based on B-cell subset associated gene signatures from normal bone marrow - A proof of concept study** *PLOS ONE*
Norgaard, C., Jakobsen, L., Gentles, A. J., Dybkaer, K., El-Galaly, T., Bodker, J., Schmitz, A., Johansen, P., Herold, T., Spiekermann, K., Brown, J. R., Klitgaard, J. L., Johnsen, et al
2018; 13 (3): e0193249
- **Brd4 regulates the expression of essential autophagy genes and Keap1 in AML cells.** *Oncotarget*
Huang, M., Zhu, L., Garcia, J. S., Li, M. X., Gentles, A. J., Mitchell, B. S.
2018; 9 (14): 11665–76
- **Module Analysis Captures Pancancer Genetically and Epigenetically Deregulated Cancer Driver Genes for Smoking and Antiviral Response.** *EBioMedicine*
Champion, M. n., Brennan, K. n., Croonenborghs, T. n., Gentles, A. J., Pochet, N. n., Gevaert, O. n.
2018; 27: 156–66
- **Quantification of Macrophages in High-Grade Gliomas by Using Ferumoxytol-enhanced MRI: A Pilot Study.** *Radiology*
Iv, M. n., Samghabadi, P. n., Holdsworth, S. n., Gentles, A. n., Rezaii, P. n., Harsh, G. n., Li, G. n., Thomas, R. n., Moseley, M. n., Daldrup-Link, H. E., Vogel, H. n., Wintermark, M. n., Cheshier, et al
2018: 181204
- **Non-Small Cell Lung Cancer Radiogenomics Map Identifies Relationships between Molecular and Imaging Phenotypes with Prognostic Implications.** *Radiology*
Zhou, M. n., Leung, A. n., Echegaray, S. n., Gentles, A. n., Shrager, J. B., Jensen, K. C., Berry, G. J., Plevritis, S. K., Rubin, D. L., Napel, S. n., Gevaert, O. n.
2018; 286 (1): 307–15
- **Human AML-IPSCs Reacquire Leukemic Properties after Differentiation and Model Clonal Variation of Disease.** *Cell stem cell*
Chao, M. P., Gentles, A. J., Chatterjee, S., Lan, F., Reinisch, A., Corces, M. R., Xavy, S., Shen, J., Haag, D., Chanda, S., Sinha, R., Morganti, R. M., Nishimura, et al
2017; 20 (3): 329-344 e7
- **Identification of an atypical etiological head and neck squamous carcinoma subtype featuring the CpG island methylator phenotype.** *EBioMedicine*
Brennan, K., Koenig, J. L., Gentles, A. J., Sunwoo, J. B., Gevaert, O.
2017; 17: 223-236
- **NSD1 inactivation defines an immune cold, DNA hypomethylated subtype in squamous cell carcinoma.** *Scientific reports*
Brennan, K. n., Shin, J. H., Tay, J. K., Prunello, M. n., Gentles, A. J., Sunwoo, J. B., Gevaert, O. n.
2017; 7 (1): 17064
- **Data normalization considerations for digital tumor dissection.** *Genome biology*
Newman, A. M., Gentles, A. J., Liu, C. L., Diehn, M. n., Alizadeh, A. A.
2017; 18 (1): 128
- **Low BUB1 expression is an adverse prognostic marker in gastric adenocarcinoma.** *Oncotarget*
Stahl, D. n., Braun, M. n., Gentles, A. J., Lingohr, P. n., Walter, A. n., Kristiansen, G. n., Gütgemann, I. n.
2017; 8 (44): 76329–39
- **Role of KEAP1/NRF2 and TP53 Mutations in Lung Squamous Cell Carcinoma Development and Radiation Resistance.** *Cancer discovery*
Jeong, Y., Hoang, N. T., Lovejoy, A., Stehr, H., Newman, A. M., Gentles, A. J., Kong, W., Truong, D., Martin, S., Chaudhuri, A., Heiser, D., Zhou, L., Say, et al
2016
- **Pathophysiological significance and therapeutic targeting of germinal center kinase in diffuse large B-cell lymphoma.** *Blood*
Matthews, J. M., Bhatt, S., Patricelli, M. P., Nomanbhoy, T. K., Jiang, X., Natkunam, Y., Gentles, A. J., Martinez, E., Zhu, D., Chapman, J. R., Cortizas, E., Shyam, R., Chinichian, et al
2016; 128 (2): 239-248
- **Identifying Network Perturbation in Cancer** *PLOS COMPUTATIONAL BIOLOGY*
Grechkin, M., Logsdon, B. A., Gentles, A. J., Lee, S.
2016; 12 (5)

- **Gene expression analysis of plasmablastic lymphoma identifies downregulation of B-cell receptor signaling and additional unique transcriptional programs** *LEUKEMIA*
Chapman, J., Gentles, A. J., Sujoy, V., Vega, F., Dumur, C. I., BLEVINS, T. L., Bernal-Mizrachi, L., Mosunjac, M., Pimentel, A., Zhu, D., Lossos, I. S. 2015; 29 (11): 2270-2273
- **Integrating Tumor and Stromal Gene Expression Signatures With Clinical Indices for Survival Stratification of Early-Stage Non-Small Cell Lung Cancer.** *Journal of the National Cancer Institute*
Gentles, A. J., Bratman, S. V., Lee, L. J., Harris, J. P., Feng, W., Nair, R. V., Shultz, D. B., Nair, V. S., Hoang, C. D., West, R. B., Plevritis, S. K., Alizadeh, A. A., Diehn, et al 2015; 107 (10)
- **CD93 Marks a Non-Quiescent Human Leukemia Stem Cell Population and Is Required for Development of MLL-Rearranged Acute Myeloid Leukemia.** *Cell stem cell*
Iwasaki, M., Liedtke, M., Gentles, A. J., Cleary, M. L. 2015; 17 (4): 412-421
- **An LSC epigenetic signature is largely mutation independent and implicates the HOXA cluster in AML pathogenesis** *NATURE COMMUNICATIONS*
Jung, N., Dai, B., Gentles, A. J., Majeti, R., Feinberg, A. P. 2015; 6
- **The prognostic landscape of genes and infiltrating immune cells across human cancers** *NATURE MEDICINE*
Gentles, A. J., Newman, A. M., Liu, C. L., Bratman, S. V., Feng, W., Kim, D., Nair, V. S., Xu, Y., Khuong, A., Hoang, C. D., Diehn, M., West, R. B., Plevritis, et al 2015; 21 (8): 938-945
- **Robust enumeration of cell subsets from tissue expression profiles.** *Nature methods*
Newman, A. M., Liu, C. L., Green, M. R., Gentles, A. J., Feng, W., Xu, Y., Hoang, C. D., Diehn, M., Alizadeh, A. A. 2015; 12 (5): 453-457
- **Reprogramming of primary human Philadelphia chromosome-positive B cell acute lymphoblastic leukemia cells into nonleukemic macrophages** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
McClellan, J. S., Dove, C., Gentles, A. J., Ryan, C. E., Majeti, R. 2015; 112 (13): 4074-4079
- **Mutations in early follicular lymphoma progenitors are associated with suppressed antigen presentation.** *Proceedings of the National Academy of Sciences of the United States of America*
Green, M. R., Kihira, S., Liu, C. L., Nair, R. V., Salari, R., Gentles, A. J., Irish, J., Stehr, H., Vicente-Dueñas, C., Romero-Camarero, I., Sanchez-Garcia, I., Plevritis, S. K., Arber, et al 2015; 112 (10): E1116-25
- **Sparse expression bases in cancer reveal tumor drivers.** *Nucleic acids research*
Logsdon, B. A., Gentles, A. J., Miller, C. P., Blau, C. A., Becker, P. S., Lee, S. 2015; 43 (3): 1332-1344
- **Mutant WT1 is associated with DNA hypermethylation of PRC2 targets in AML and responds to EZH2 inhibition.** *Blood*
Sinha, S., Thomas, D., Yu, L., Gentles, A. J., Jung, N., Corces-Zimmerman, M. R., Chan, S. M., Reinisch, A., Feinberg, A. P., Dill, D. L., Majeti, R. 2015; 125 (2): 316-326
- **A Simple Method for Estimating Interactions Between a Treatment and a Large Number of Covariates** *JOURNAL OF THE AMERICAN STATISTICAL ASSOCIATION*
Tian, L., Alizadeh, A. A., Gentles, A. J., Tibshirani, R. 2014; 109 (508): 1517-1532
- **A Simple Method for Estimating Interactions between a Treatment and a Large Number of Covariates.** *Journal of the American Statistical Association*
Tian, L., Alizadeh, A. A., Gentles, A. J., Tibshirani, R. 2014; 109 (508): 1517-1532
- **Targeting Unique Metabolic Properties of Breast Tumor Initiating Cells** *STEM CELLS*
Feng, W., Gentles, A., Nair, R. V., Huang, M., Lin, Y., Lee, C. Y., Cai, S., Scheeren, F. A., Kuo, A. H., Diehn, M.

2014; 32 (7): 1734-1745

- **Active idiotypic vaccination versus control immunotherapy for follicular lymphoma.** *Journal of clinical oncology*
Levy, R., Ganjoo, K. N., Leonard, J. P., Vose, J. M., Flinn, I. W., Ambinder, R. F., Connors, J. M., Berinstein, N. L., Belch, A. R., Bartlett, N. L., Nichols, C., Emmanouilides, C. E., Timmerman, et al
2014; 32 (17): 1797-1803
- **Utility in prognostic value added by molecular profiles for diffuse large B-cell lymphoma.** *Blood*
Gentles, A. J., Alizadeh, A. A.
2013; 121 (15): 3052-3054
- **Hierarchy in somatic mutations arising during genomic evolution and progression of follicular lymphoma.** *Blood*
Green, M. R., Gentles, A. J., Nair, R. V., Irish, J. M., Kihira, S., Liu, C. L., Kela, I., Hopmans, E. S., Myklebust, J. H., Ji, H., Plevritis, S. K., Levy, R., Alizadeh, et al
2013; 121 (9): 1604-1611
- **Systematic Deconvolution of Hematolymphoid Tumor Transcriptomes Reveals Infiltrating Immune Cell Signatures Related to Survival** *54th Annual Meeting and Exposition of the American-Society-of-Hematology (ASH)*
Newman, A. M., Gentles, A. J., Plevritis, S. K., Alizadeh, A. A.
AMER SOC HEMATOLOGY.2012
- **Hierarchy in Somatic Mutations Arising During Genomic Evolution and Progression of Follicular Lymphoma** *54th Annual Meeting and Exposition of the American-Society-of-Hematology (ASH)*
Green, M. R., Gentles, A. J., Nair, R. V., Irish, J. M., Levy, R., Alizadeh, A. A.
AMER SOC HEMATOLOGY.2012
- **The chemoattractant chemerin suppresses melanoma by recruiting natural killer cell antitumor defenses** *JOURNAL OF EXPERIMENTAL MEDICINE*
Pachynski, R. K., Zabel, B. A., Kohrt, H. E., Tejada, N. M., Monnier, J., Swanson, C. D., Holzer, A. K., Gentles, A. J., Sperinde, G. V., Edalati, A., Hadeiba, H. A., Alizadeh, A. A., Butcher, et al
2012; 209 (8): 1427-1435
- **Identification of LMO2 transcriptome and interactome in diffuse large B-cell lymphoma** *BLOOD*
Cubedo, E., Gentles, A. J., Huang, C., Natkunam, Y., Bhatt, S., Lu, X., Jiang, X., Romero-Camarero, I., Freud, A., Zhao, S., Bacchi, C. E., Martinez-Climent, J. A., Sanchez-Garcia, et al
2012; 119 (23): 5478-5491
- **The chemoattractant chemerin as a natural tumor suppressive cytokine.** *48th Annual Meeting of the American-Society-of-Clinical-Oncology (ASCO)*
Pachynski, R. K., Zabel, B., Tejada, N., Monnier, J., Holzer, A. K., Gentles, A., Kohrt, H. E., Hadeiba, H., Alizadeh, A. A., Butcher, E.
AMER SOC CLINICAL ONCOLOGY.2012
- **The CD47-signal regulatory protein alpha (SIRPa) interaction is a therapeutic target for human solid tumors** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Willingham, S. B., Volkmer, J., Gentles, A. J., Sahoo, D., Dalerba, P., Mitra, S. S., Wang, J., Contreras-Trujillo, H., Martin, R., Cohen, J. D., Lovelace, P., Scheeren, F. A., Chao, et al
2012; 109 (17): 6662-6667
- **Identification of LMO2 Transcriptome and Interactome in Diffuse Large B-Cell Lymphoma by Integrated Experimental and Computational Approach** *53rd Annual Meeting and Exposition of the American-Society-of-Hematology (ASH)*
Cubedo, E., Gentles, A. J., Huang, C., Natkunam, Y., Bhatt, S., Jiang, X., Lu, X., Romero-Camarero, I., Plevritis, S. K., Martinez-Climent, J. A., Sanchez-Garcia, I., Melnick, A., Lossos, et al
AMER SOC HEMATOLOGY.2011: 201-2
- **A few good genes Simple, biologically motivated signatures for cancer prognosis** *CELL CYCLE*
Gentles, A. J., Alizadeh, A. A.
2011; 10 (21): 3615-3616
- **Lymphomas that recur after MYC suppression continue to exhibit oncogene addiction** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Choi, P. S., van Riggelen, J., Gentles, A. J., Bachireddy, P., Rakhra, K., Adam, S. J., Plevritis, S. K., Felsner, D. W.
2011; 108 (42): 17432-17437

- **Systems Biology: Confronting the Complexity of Cancer** *CANCER RESEARCH*
Gentles, A. J., Gallahan, D.
2011; 71 (18): 5961-5964
- **Prediction of survival in diffuse large B-cell lymphoma based on the expression of 2 genes reflecting tumor and microenvironment** *BLOOD*
Alizadeh, A. A., Gentles, A. J., Alencar, A. J., Liu, C. L., Kohrt, H. E., Houot, R., Goldstein, M. J., Zhao, S., Natkunam, Y., Advani, R. H., Gascoyne, R. D., Briones, J., Tibshirani, et al
2011; 118 (5): 1350-1358
- **Clinical Application of Readout-Segmented-Echo-Planar Imaging for Diffusion-Weighted Imaging in Pediatric Brain** *AMERICAN JOURNAL OF NEURORADIOLOGY*
Holdsworth, S. J., Yeom, K., Skare, S., Gentles, A. J., Barnes, P. D., Bammer, R.
2011; 32 (7): 1274-1279
- **Discovering Biological Progression Underlying Microarray Samples** *PLOS COMPUTATIONAL BIOLOGY*
Qiu, P., Gentles, A. J., Plevritis, S. K.
2011; 7 (4)
- **Prospective separation of normal and leukemic stem cells based on differential expression of TIM3, a human acute myeloid leukemia stem cell marker** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Jan, M., Chao, M. P., Cha, A. C., Alizadeh, A. A., Gentles, A. J., Weissman, I. L., Majeti, R.
2011; 108 (12): 5009-5014
- **Association of a Leukemic Stem Cell Gene Expression Signature With Clinical Outcomes in Acute Myeloid Leukemia** *JAMA-JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION*
Gentles, A. J., Plevritis, S. K., Majeti, R., Alizadeh, A. A.
2010; 304 (24): 2706-2715
- **Calreticulin Is the Dominant Pro-Phagocytic Signal on Multiple Human Cancers and Is Counterbalanced by CD47** *SCIENCE TRANSLATIONAL MEDICINE*
Chao, M. P., Jaiswal, S., Weissman-Tsukamoto, R., Alizadeh, A. A., Gentles, A. J., Volkmer, J., Weiskopf, K., Willingham, S. B., Raveh, T., Park, C. Y., Majeti, R., Weissman, I. L.
2010; 2 (63)
- **Recurrent Interstitial 1p36 Deletions: Evidence for Germline Mosaicism and Complex Rearrangement Breakpoints** *AMERICAN JOURNAL OF MEDICAL GENETICS PART A*
Gajecka, M., Saitta, S. C., Gentles, A. J., Campbell, L., Ciprero, K., Geiger, E., Catherwood, A., Rosenfeld, J. A., Shaikh, T., Shaffer, L. G.
2010; 152A (12): 3074-3083
- **Prediction of Survival In Diffuse Large B-Cell Lymphoma Based On the Expression of Two Genes Reflecting Tumor and Microenvironment** *52nd Annual Meeting and Exposition of the American-Society-of-Hematology (ASH)*
Alizadeh, A. A., Gentles, A. J., Alencar, A. J., Kohrt, H. E., Houot, R., Goldstein, M. J., Zhao, S., Natkunam, Y., Advani, R., Gascoyne, R. D., Briones, J., Tibshirani, R. J., Myklebust, et al
AMER SOC HEMATOLOGY.2010: 836-37
- **Efficacy of bortezomib in a direct xenograft model of primary effusion lymphoma** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Sarosiek, K. A., Cavallin, L. E., Bhatt, S., Toomey, N. L., Natkunam, Y., Blasini, W., Gentles, A. J., Ramos, J. C., Mesri, E. A., Lossos, I. S.
2010; 107 (29): 13069-13074
- **Reducing the Computational Complexity of Information Theoretic Approaches for Reconstructing Gene Regulatory Networks** *JOURNAL OF COMPUTATIONAL BIOLOGY*
Qiu, P., Gentles, A. J., Plevritis, S. K.
2010; 17 (2): 169-176
- **Novel IL-21 signaling pathway up-regulates c-Myc and induces apoptosis of diffuse large B-cell lymphomas** *BLOOD*
Sarosiek, K. A., Malumbres, R., Nechushtan, H., Gentles, A. J., Avisar, E., Lossos, I. S.
2010; 115 (3): 570-580
- **Prediction of Survival in Diffuse Large B-Cell Lymphoma Based On the Expression of Two Genes: Integration of Tumor and Microenvironment Contributions** *51st Annual Meeting and Exposition of the American-Society-of-Hematology*

- Alizadeh, A. A., Gentles, A. J., Alencar, A. J., Kohrt, H. E., Houot, R., Talreja, N., Shyam, R., Natkunam, Y., Gascoyne, R. D., Briones, J., Advani, R., Lossos, I. S., Levy, et al
AMER SOC HEMATOLOGY.2009: 258–58
- **Gene Expression Signature of Host Immune Response Is Predictive of Follicular Lymphoma Patient Survival in Independent Cohorts, and Correlates with Transformation to Diffuse Large B-Cell Lymphoma.** *51st Annual Meeting and Exposition of the American-Society-of-Hematology*
Alizadeh, A. A., Gentles, A. J., Plevritis, S. K., Levy, R.
AMER SOC HEMATOLOGY.2009: 1153–53
 - **A pluripotency signature predicts histologic transformation and influences survival in follicular lymphoma patients** *BLOOD*
Gentles, A. J., Alizadeh, A. A., Lee, S., Myklebust, J. H., Shachaf, C. M., Shahbaba, B., Levy, R., Koller, D., Plevritis, S. K.
2009; 114 (15): 3158-3166
 - **Molecular Outcome Prediction in Diffuse Large-B-Cell Lymphoma** *NEW ENGLAND JOURNAL OF MEDICINE*
Alizadeh, A. A., Gentles, A. J., Lossos, I. S., Levy, R.
2009; 360 (26): 2794-2795
 - **Further delineation of nonhomologous-based recombination and evidence for subtelomeric segmental duplications in 1p36 rearrangements** *HUMAN GENETICS*
D'Angelo, C. S., Gajicka, M., Kim, C. A., Gentles, A. J., Glotzbach, C. D., Shaffer, L. G., Koiffmann, C. P.
2009; 125 (5-6): 551-563
 - **Fast calculation of pairwise mutual information for gene regulatory network reconstruction** *COMPUTER METHODS AND PROGRAMS IN BIOMEDICINE*
Qiu, P., Gentles, A. J., Plevritis, S. K.
2009; 94 (2): 177-180
 - **Characterization of Patient Specific Signaling via Augmentation of Bayesian Networks with Disease and Patient State Nodes** *Annual International Conference of the IEEE-Engineering-in-Medicine-and-Biology-Society*
Sachs, K., Gentles, A. J., Youland, R., Itani, S., Irish, J., Nolan, G. P., Plevritis, S. K.
IEEE.2009: 6624–6627
 - **A Bayesian nonparametric method for model evaluation: application to genetic studies** *JOURNAL OF NONPARAMETRIC STATISTICS*
Shahbaba, B., Gentles, A. J., Beyene, J., Plevritis, S. K., Greenwood, C. M.
2009; 21 (3): 379-396
 - **Unexpected complexity at breakpoint junctions in phenotypically normal individuals and mechanisms involved in generating balanced translocations t(1;22)(p36;q13)** *GENOME RESEARCH*
Gajicka, M., Gentles, A. J., Tsai, A., Chitayat, D., Mackay, K. L., Glotzbach, C. D., Lieber, M. R., Shaffer, L. G.
2008; 18 (11): 1733-1742
 - **Genomic and proteomic analysis reveals a threshold level of MYC required for tumor maintenance** *CANCER RESEARCH*
Shachaf, C. M., Gentles, A. J., Elchuri, S., Sahoo, D., Soen, Y., Sharpe, O., Perez, O. D., Chang, M., Mitchel, D., Robinson, W. H., Dill, D., Nolan, G. P., Plevritis, et al
2008; 68 (13): 5132-5142
 - **Boolean implication networks derived from large scale, whole genome microarray datasets** *GENOME BIOLOGY*
Sahoo, D., Dill, D. L., Gentles, A. J., Tibshirani, R., Plevritis, S. K.
2008; 9 (10)
 - **SINEs, evolution and genome structure in the opossum** *GENE*
Gu, W., Ray, D. A., Walker, J. A., Barnes, E. W., Gentles, A. J., Samollow, P. B., Jurka, J., Batzer, M. A., Pollock, D. D.
2007; 396 (1): 46-58
 - **Evolutionary dynamics of transposable elements in the short-tailed opossum *Monodelphis domestica*** *GENOME RESEARCH*
Gentles, A. J., Wakefield, M. J., Kohany, O., Gu, W., Batzer, M. A., Pollock, D. D., Jurka, J.
2007; 17 (7): 992-1004
 - **Genome of the marsupial *Monodelphis domestica* reveals innovation in non-coding sequences** *NATURE*
Mikkelsen, T. S., Wakefield, M. J., Aken, B., Amemiya, C. T., Chang, J. L., Duke, S., Garber, M., Gentles, A. J., Goodstadt, L., Heger, A., Jurka, J., Kamal, M., Mauceli, et al

2007; 447 (7141): 167-U1

- **Annotation, submission and screening of repetitive elements in Repbase: RepbaseSubmitter and Censor** *BMC BIOINFORMATICS*
Kohany, O., Gentles, A. J., Hankus, L., Jurka, J.
2006; 7
- **Retroposition of processed pseudogenes: the impact of RNA stability and translational control** *TRENDS IN GENETICS*
Pavlicek, A., Gentles, A. J., Paces, J., Paces, V., Jurka, J.
2006; 22 (2): 69-73
- **Origin and diversification of minisatellites derived from human Alu sequences** *GENE*
Jurka, J., Gentles, A. J.
2006; 365: 21-26
- **Traffic of genetic information between segmental duplications flanking the typical 22q-11.2 deletion in velo-cardio-facial syndrome/ DiGeorge syndrome** *GENOME RESEARCH*
Pavlicek, A., House, R., Gentles, A. J., Jurka, J., Morrow, B. E.
2005; 15 (11): 1487-1495
- **Evolutionary diversity and potential recombinogenic role of integration targets of non-LTR retrotransposons** *MOLECULAR BIOLOGY AND EVOLUTION*
Gentles, A. J., Kohany, O., Jurka, J.
2005; 22 (10): 1983-1991
- **Genome comparisons and analysis** *CURRENT OPINION IN STRUCTURAL BIOLOGY*
Karlin, S., Mrazek, J., Gentles, A. J.
2003; 13 (3): 344-352
- **Associations between human disease genes and overlapping gene groups and multiple amino acid runs** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Karlin, S., CHEN, C. F., Gentles, A. J., Cleary, M.
2002; 99 (26): 17008-17013
- **Genes, pseudogenes, and Alu sequence organization across human chromosomes 21 and 22** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
CHEN, C. F., Gentles, A. J., Jurka, J., Karlin, S.
2002; 99 (5): 2930-2935
- **Amino acid runs in eukaryotic proteomes and disease associations** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Karlin, S., Brocchieri, L., Bergman, A., Mrazek, J., Gentles, A. J.
2002; 99 (1): 333-338
- **Genomics - Annotation of the Drosophila genome** *NATURE*
Karlin, S., Bergman, A., Gentles, A. J.
2001; 411 (6835): 259-260
- **Genome-scale compositional comparisons in eukaryotes** *GENOME RESEARCH*
Gentles, A. J., Karlin, S.
2001; 11 (4): 540-546
- **Why are human G-protein-coupled receptors predominantly intronless?** *TRENDS IN GENETICS*
Gentles, A. J., Karlin, S.
1999; 15 (2): 47-49