

# Stanford

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## Akash Kumar

Adjunct Clinical Instructor, Pediatrics - Medical Genetics

### Bio

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#### PROFESSIONAL EDUCATION

- Board Certification: Clinical Genetics and Genomics, American Board of Medical Genetics and Genomics (2023)
- Board Certification: Pediatrics, American Board of Pediatrics (2020)
- Residency: Stanford University Division of Medical Genetics (2020) CA
- Medical Education: University of Washington School of Medicine (2016) WA

### Publications

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#### PUBLICATIONS

- **Whole-genome risk prediction of common diseases in human preimplantation embryos** *NATURE MEDICINE*  
Kumar, A., Im, K., Banjevic, M., Ng, P. C., Tunstall, T., Garcia, G., Galhardo, L., Sun, J., Schaedel, O. N., Levy, B., Hongo, D., Kijacic, D., Kiehl, et al  
2022; 28 (3): 513-+
- **Extracutaneous manifestations in phacomatosis cesioflammea and cesiomarmorata: Case series and literature review** *AMERICAN JOURNAL OF MEDICAL GENETICS PART A*  
Kumar, A., Zastrow, D. B., Kravets, E. J., Belefond, D., Ruzhnikov, M. Z., Grove, M. E., Dries, A. M., Kohler, J. N., Waggott, D. M., Yang, Y., Huang, Y., Mackenzie, K. M., Eng, et al  
2019; 179 (6): 966-77
- **Extracutaneous manifestations in phacomatosis cesioflammea and cesiomarmorata: Case series and literature review.** *American journal of medical genetics. Part A*  
Kumar, A., Zastrow, D. B., Kravets, E. J., Belefond, D., Ruzhnikov, M. R., Grove, M. E., Dries, A. M., Kohler, J. N., Waggott, D. M., Yang, Y., Huang, Y., Undiagnosed Diseases Network, Mackenzie, K. M., et al  
2019
- **The Rhododendron genome and chromosomal organization provide insight into shared whole genome duplications across the heath family (Ericaceae).** *Genome biology and evolution*  
Soza, V. L., Lindsley, D. n., Waalkes, A. n., Ramage, E. n., Patwardhan, R. P., Burton, J. N., Adey, A. n., Kumar, A. n., Qiu, R. n., Shendure, J. n., Hall, B. n.  
2019
- **Substantial interindividual and limited intraindividual genomic diversity among tumors from men with metastatic prostate cancer** *NATURE MEDICINE*  
Kumar, A., Coleman, I., Morrissey, C., Zhang, X., True, L. D., Gulati, R., Etzioni, R., Bolouri, H., Montgomery, B., White, T., Lucas, J. M., Brown, L. G., Dumpit, et al  
2016; 22 (4): 369-?
- **Recurrent Somatic Loss of TNFRSF14 in Classical Hodgkin Lymphoma** *GENES CHROMOSOMES & CANCER*  
Salipante, S. J., Adey, A., Thomas, A., Lee, C., Liu, Y. J., Kumar, A., Lewis, A. P., Wu, D., Fromm, J. R., Shendure, J.  
2016; 55 (3): 278-287
- **Whole genome prediction for preimplantation genetic diagnosis** *GENOME MEDICINE*

- Kumar, A., Ryan, A., Kitzman, J. O., Wemmer, N., Snyder, M. W., Sigurjonsson, S., Lee, C., Banjevic, M., Zarutskie, P. W., Lewis, A. P., Shendure, J., Rabinowitz, M.  
2015; 7
- **In vitro, long-range sequence information for de novo genome assembly via transposase contiguity.** *Genome research*  
Adey, A., Kitzman, J. O., Burton, J. N., Daza, R., Kumar, A., Christiansen, L., Ronaghi, M., Amini, S., Gunderson, K. L., Steemers, F. J., Shendure, J.  
2014; 24 (12): 2041-9
  - **MIPgen: optimized modeling and design of molecular inversion probes for targeted resequencing** *BIOINFORMATICS*  
Boyle, E. A., O'Roak, B. J., Martin, B. K., Kumar, A., Shendure, J.  
2014; 30 (18): 2670-2672
  - **Genome Sequencing of Idiopathic Pulmonary Fibrosis in Conjunction with a Medical School Human Anatomy Course** *PLOS ONE*  
Kumar, A., Dougherty, M., Findlay, G. M., Geisheker, M., Klein, J., Lazar, J., Machkovech, H., Resnick, J., Resnick, R., Salter, A. I., Talebi-Liasi, F., Arakawa, C., Baudin, et al  
2014; 9 (9)
  - **Complex MSH2 and MSH6 mutations in hypermutated microsatellite unstable advanced prostate cancer** *NATURE COMMUNICATIONS*  
Pritchard, C. C., Morrissey, C., Kumar, A., Zhang, X., Smith, C., Coleman, I., Salipante, S. J., Milbank, J., Yu, M., Grady, W. M., Tait, J. F., Corey, E., Vessella, et al  
2014; 5
  - **Deep sequencing of multiple regions of glial tumors reveals spatial heterogeneity for mutations in clinically relevant genes** *GENOME BIOLOGY*  
Kumar, A., Boyle, E. A., Tokita, M., Mikheev, A. M., Sanger, M. C., Girard, E., Silber, J. R., Gonzalez-Cuyar, L. F., Hiatt, J. B., Adey, A., Lee, C., Kitzman, J. O., Born, et al  
2014; 15 (12)
  - **Germline Missense Variants in the BTNL2 Gene Are Associated with Prostate Cancer Susceptibility.** *Cancer epidemiology, biomarkers & prevention : a publication of the American Association for Cancer Research, cosponsored by the American Society of Preventive Oncology*  
FitzGerald, L. M., Kumar, A., Boyle, E. A., Zhang, Y., McIntosh, L. M., Kolb, S., Stott-Miller, M., Smith, T., Karyadi, D. M., Ostrander, E. A., Hsu, L., Shendure, J., Stanford, et al  
2013; 22 (9): 1520-1528
  - **Multiplex Targeted Sequencing Identifies Recurrently Mutated Genes in Autism Spectrum Disorders** *SCIENCE*  
O'Roak, B. J., Vives, L., Fu, W., Egertson, J. D., Stanaway, I. B., Phelps, I. G., Carvill, G., Kumar, A., Lee, C., Ankenman, K., Munson, J., Hiatt, J. B., Turner, et al  
2012; 338 (6114): 1619-1622
  - **Exome sequencing identifies a spectrum of mutation frequencies in advanced and lethal prostate cancers** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Kumar, A., White, T. A., MacKenzie, A. P., Clegg, N., Lee, C., Dumpit, R. F., Coleman, I., Ng, S. B., Salipante, S. J., Rieder, M. J., Nickerson, D. A., Corey, E., Lange, et al  
2011; 108 (41): 17087-17092
  - **Target-enrichment strategies for next-generation sequencing** *NATURE METHODS*  
Mamanova, L., Coffey, A. J., Scott, C. E., Kozarewa, I., Turner, E. H., Kumar, A., Howard, E., Shendure, J., Turner, D. J.  
2010; 7 (2): 111-118