Stanford

Linda N. Geng, MD, PhD

Clinical Assistant Professor, Medicine - Primary Care and Population Health

CLINICAL OFFICES

- **Stanford Internal Medicine**

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Bio

CLINICAL FOCUS

- Diagnostic Medicine
- Undiagnosed Diseases and Medical Mysteries
- Rare Disorders
- Post-Acute COVID-19 Syndrome (long COVID)
- Internal Medicine

ACADEMIC APPOINTMENTS

- Clinical Assistant Professor, Medicine - Primary Care and Population Health

ADMINISTRATIVE APPOINTMENTS

- Co-Director, Stanford Post-Acute COVID-19 Syndrome Clinic, (2021- present)
- Co-Director, Stanford Consultative Medicine Clinic, (2019- present)
- Chief Resident, Stanford Internal Medicine Residency Program, (2018-2019)

HONORS AND AWARDS

- Julian Wolfsohn Award (for clinical excellence, leadership, teaching, kindness), Stanford Internal Medicine Residency (2016)
- Harold M. Weintraub Graduate Student Award (National), Fred Hutchinson Cancer Research Center (2012)
- Alpha Omega Alpha (Medical Honor Society), Stanford University chapter (2019)
- Phi Beta Kappa (Honor Society), Rice University chapter (2006)

PROFESSIONAL EDUCATION

- Board Certification: Internal Medicine, American Board of Internal Medicine (2019)
- Visiting scholar, NIH , Undiagnosed Diseases Program (2019)
- Chief Resident, Stanford University Internal Medicine Residency (2019)

- Residency: Stanford University Internal Medicine Residency (2018) CA
- Medical Education: University of Washington School of Medicine (2015) WA
- Ph.D., University of Washington , Molecular and Cellular Biology (2011)

LINKS

- Consultative Medicine Clinic: https://stanfordhealthcare.org/consultativemedicine
- Stanford Post-Acute COVID-19 Syndrome (PACS) Clinic: http://stanfordhealthcare.org/PACS

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

My scholarly interests are focused on defining, studying, and improving patients' diagnostic journeys. What prolongs the journey to the correct diagnosis and how can we shorten it? With this question in mind, we are exploring crowdsourcing, informatics/AI, health data visualization, and advanced laboratory testing as ways to help tackle the toughest cases in medicine-- complex, rare, and mystery conditions.

With the COVID pandemic, the puzzling and complex illness of post-acute COVID-19 syndrome (PACS) or long COVID came to light. Together with a multidisciplinary group of physicians and researchers, we launched a program here at Stanford to advance the care and understanding of PACS. Our goal is to better understand the natural history, clinical symptomatology, immunological response, risk factors, and subgroup stratification for PACS. We are also actively assessing management strategies that may be effective for heterogeneous PACS symptoms.

Teaching

COURSES

2021-22

- Diagnostic Medicine on Television: Truths vs. Theatrics: MED 291 (Win)

2020-21

- Diagnostic Medicine on Television: Truths vs. Theatrics: MED 291 (Win)

Publications

PUBLICATIONS

- **Phases of the Diagnostic Journey: A Framework** *International Archives of Internal Medicine*
  Geng, L. N., Sum-Ping, O., Geng, Y.
  2019
- **Genomics in medicine: a novel elective rotation for internal medicine residents.** *Postgraduate medical journal*
  Geng, L. N., Kohler, J. N., Levonian, P. n., Bernstein, J. A., Ford, J. M., Ahuja, N. n., Witteles, R. n., Hom, J. n., Wheeler, M. n.
  2019
- **Loss of Paneth Cell Autophagy Causes Acute Susceptibility to Toxoplasma gondii-Mediated Inflammation.** *Cell host & microbe*
  Burger, E. n., Araujo, A. n., López-Yglesias, A. n., Rajala, M. W., Geng, L. n., Levine, B. n., Hooper, L. V., Burstein, E. n., Yarovinsky, F. n.
  2018; 23 (2): 177–90.e4
- **COMMD1 is linked to the WASH complex and regulates endosomal trafficking of the copper transporter ATP7A.** *Molecular biology of the cell*
  Phillips-Krawczak, C. A., Singla, A. n., Starokadomskyy, P. n., Deng, Z. n., Osborne, D. G., Li, H. n., Dick, C. J., Gomez, T. S., Koenecke, M. n., Zhang, J. S., Dai, H. n., Sifuentes-Dominguez, L. F., Geng, et al
  2015; 26 (1): 91–103
- **DUX4 binding to retroelements creates promoters that are active in FSHD muscle and testis.** *PLoS genetics*

Young, J. M., Whiddon, J. L., Yao, Z. n., Kasinathan, B. n., Snider, L. n., Geng, L. N., Balog, J. n., Tawil, R. n., van der Maarel, S. M., Tapscott, S. J.
2013; 9 (11): e1003947

- **Deregulation of the protocadherin gene FAT1 alters muscle shapes: implications for the pathogenesis of facioscapulohumeral dystrophy.** *PLoS genetics*
  Caruso, N. n., Herberth, B. n., Bartoli, M. n., Puppo, F. n., Dumonceaux, J. n., Zimmermann, A. n., Denadai, S. n., Lebossé, M. n., Roche, S. n., Geng, L. n., Magdinier, F. n., Attarian, S. n., Bernard, et al
  2013; 9 (6): e1003550

- **Behcet's disease with major vascular involvement.** *BMJ case reports*
  Geng, L. N., Conway, D. n., Barnhart, S. n., Nowatzky, J. n.
  2013; 2013

- **Generation of isogenic D4Z4 contracted and noncontracted immortal muscle cell clones from a mosaic patient: a cellular model for FSHD.** *The American journal of pathology*
  Krom, Y. D., Dumonceaux, J. n., Mamchaoui, K. n., den Hamer, B. n., Mariot, V. n., Negroni, E. n., Geng, L. N., Martin, N. n., Tawil, R. n., Tapscott, S. J., van Engelen, B. G., Mouly, V. n., Butler-Browne, et al
  2012; 181 (4): 1387–1401

- **DUX4 activates germline genes, retroelements, and immune mediators: implications for facioscapulohumeral dystrophy.** *Developmental cell*
  Geng, L. N., Yao, Z. n., Snider, L. n., Fong, A. P., Cech, J. N., Young, J. M., van der Maarel, S. M., Ruzzo, W. L., Gentleman, R. C., Tawil, R. n., Tapscott, S. J.
  2012; 22 (1): 38–51

- **Immunodetection of human double homeobox 4.** *Hybridoma (2005)*
  Geng, L. N., Tyler, A. E., Tapscott, S. J.
  2011; 30 (2): 125–30

- **Variability in the Androgen Response of Prostate Epithelium to 5 alpha-Reductase Inhibition: Implications for Prostate Cancer Chemoprevention** *CANCER RESEARCH*
  Mostaghel, E. A., Geng, L., Holcomb, I., Coleman, I. M., Lucas, J., True, L. D., Nelson, P. S.
  2010; 70 (4): 1286-1295

- **Facioscapulohumeral dystrophy: incomplete suppression of a retrotransposed gene.** *PLoS genetics*
  Snider, L. n., Geng, L. N., Lemmers, R. J., Kyba, M. n., Ware, C. B., Nelson, A. M., Tawil, R. n., Filippova, G. N., van der Maarel, S. M., Tapscott, S. J., Miller, D. G.
  2010; 6 (10): e1001181

- **DNA methylation of developmental genes in pediatric medulloblastomas identified by denaturation analysis of methylation differences.** *Proceedings of the National Academy of Sciences of the United States of America*
  Diede, S. J., Guenthoer, J. n., Geng, L. N., Mahoney, S. E., Marotta, M. n., Olson, J. M., Tanaka, H. n., Tapscott, S. J.
  2010; 107 (1): 234–39

- **RNA transcripts, miRNA-sized fragments and proteins produced from D4Z4 units: new candidates for the pathophysiology of facioscapulohumeral dystrophy.** *Human molecular genetics*
  Snider, L. n., Asawachaicharn, A. n., Tyler, A. E., Geng, L. N., Petek, L. M., Maves, L. n., Miller, D. G., Lemmers, R. J., Winokur, S. T., Tawil, R. n., van der Maarel, S. M., Filippova, G. N., Tapscott, et al
  2009; 18 (13): 2414–30

- **Type 1 diabetes promotes disruption of advanced atherosclerotic lesions in LDL receptor-deficient mice.** *Proceedings of the National Academy of Sciences of the United States of America*
  Johansson, F. n., Kramer, F. n., Barnhart, S. n., Kanter, J. E., Vaisar, T. n., Merrill, R. D., Geng, L. n., Oka, K. n., Chan, L. n., Chait, A. n., Heinecke, J. W., Bornfeldt, K. E.
  2008; 105 (6): 2082–87

- **Structure and enzymatic properties of a chimeric bacteriophage RB69 DNA polymerase and single-stranded DNA binding protein with increased processivity.** *Proteins*
  Sun, S. n., Geng, L. n., Shamoo, Y. n.
  2006; 65 (1): 231–38

- **Structural and functional characterization of the first intracellular loop of human thromboxane A(2) receptor** *ARCHIVES OF BIOCHEMISTRY AND BIOPHYSICS*
  Geng, L., Wu, J. X., So, S. P., Huang, G. X., Ruan, K. H.

2004; 423 (2): 253-265

PRESENTATIONS

- Diagnosing Complex and Mystery Conditions: Stanford's Consultative Medicine Approach - Stanford Healthcare Library lecture series (9/5/2019)
- Medicine Grand Rounds: Tradition and Recognition - Stanford Medicine Grand rounds (1/24/2019)
- Recurrent Rhabdomyolysis: An Athlete's Journey to Diagnosis - Stanford Medicine Grand rounds (1/11/2017)
- Medical Mysteries: A Consultative Medicine Approach - Stanford Medicine Grand Rounds (1/8/2020)