

HARMAN SINGH BRAH, MD

Psychiatry Resident Physician (PGY-3), Physician Scientist Track

UCLA Semel Institute for Neuroscience and Human Behavior · VA Greater Los Angeles Healthcare System

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EDUCATION

University of California, San Diego — School of Medicine

2020 – 2024

Doctor of Medicine (MD) · La Jolla, CA

Loyola Marymount University

2016 – 2020

BS Biochemistry, summa cum laude (GPA 4.0) · Los Angeles, CA

POSTGRADUATE CLINICAL TRAINING

UCLA Health / West Los Angeles VA Medical Center

2024 – Present

Psychiatry Resident Physician (PGY-3), Physician Scientist Track · Los Angeles, CA

Outpatient & Residential Clinics:

- West LA VA Domiciliary — residential rehabilitation and outpatient addiction medicine
- UCLA General Outpatient Clinic (GOC)
- UCLA Child Anxiety, OCD, & Tic Disorders Clinic
- West LA VA Women's Mental Health Clinic
- West LA VA Anxiety & OCD Clinic

Core Rotations: Inpatient adult psychiatry (high-acuity locked units), psychiatric emergency services, consultation-liaison psychiatry, geriatric psychiatry, addiction psychiatry, outpatient crisis and community psychiatry, and inpatient/consult neurology.

CREDENTIALS & LICENSURE

- **Medical License:** Physician & Surgeon A, Medical Board of California (A210075) — active, unrestricted
- **DEA Registration:** Schedules II–V, unrestricted; DATA 2000 / MAT prescribing
- **LPS Designation:** 5150 certified, involuntary hold authorization (County of Los Angeles)
- **USMLE:** Steps 1, 2 CK, and 3 passed
- **Certifications:** BLS, ACLS

CLINICAL & TRANSLATIONAL RESEARCH

VA MIRECC / Semel Institute for Neuroscience and Human Behavior, UCLA

2026 – Present

Resident Research Investigator — Mentor: Stephen R. Marder, MD · Los Angeles, CA

- Clinical trials of MDMA-assisted psychotherapy for PTSD, psilocin-assisted psychotherapy for treatment-resistant depression, and novel-mechanism therapeutics for schizophrenia.

Brah Lab / Aspiring Scholars Directed Research Program (ASDRP)

2018 – Present

Principal Investigator · Fremont, CA

- Computational drug discovery and clinical informatics. Mentored 400+ student researchers.

Rady Children's Hospital & UCSD Department of Psychiatry — Besterman Lab

2023 – 2024

Research Fellow — Supervisor: Aaron Besterman, MD · San Diego, CA

- Led a multi-institutional systematic review and meta-analysis of diagnostic yield for chromosomal microarray and sequencing in schizophrenia.

UCSD Department of Psychiatry — Cadenhead Lab

2023 – 2024

Research Fellow — Supervisor: Kristin Cadenhead, MD · San Diego, CA

- Neuroinflammatory biomarkers and metabolic derangement linking childhood trauma to clinical high-risk psychosis conversion.

UCSD Department of Pharmacology — Sunahara Lab

2020 – 2022

Graduate Research Fellow — Supervisor: Roger Sunahara, PhD · San Diego, CA

- β 2-adrenergic receptor allosteric pharmacology: protein purification, radioligand dissociation kinetics, β -arrestin recruitment assays.

UCSF Department of Pharmaceutical Chemistry — England & Jacobson Labs

2015 – 2018

Research Assistant — Supervisors: Pamela England, PhD; Matthew Jacobson, PhD · San Francisco, CA

- Dopamine metabolite modulation of nuclear receptor Nurr1, and active-site optimization of the 12-lipoxygenase inhibitor ML355, now CAD-1005, which completed Phase 2 and is headed to Phase 3.

PEER-REVIEWED PUBLICATIONS

1. **Brah HS**, Sran N, Sanghani S, Valmadrid L, Gandarilla I, Fakhouri S, Longmire E, Heskett KM, Kendall KM, Raznahan A, Baribeau D, Fan CC, Besterman AD. Clinical genetic testing in schizophrenia: a systematic review and meta-analysis. *Biol Psychiatry*. 2026;99(7):541–549. doi:10.1016/j.biopsych.2025.09.010. Lead author.
2. Shah N, Sharma G, Patel V, Wu M, Mummadi A, Taneja A, Shah M, Le GB, Krishna M, **Brah H**. Computational design of a TCR-based bispecific engager targeting cancerous KRAS G12V mutations. *ACS Omega*. 2026. doi:10.1021/acsomega.5c10229. Senior author.
3. Kothari A, Gupta A, Shah N, Reed T, Nattuva A, Nazirudeen R, **Brah H**, Akl M. Transformer-based molecular fragment prediction using SMILES and DeepSMILES representations in a fragment-based drug discovery pipeline. *J Cheminform*. 2026. doi:10.1186/s13321-026-01255-w. Co-senior author.
4. Garcia B, Chua EYS, **Brah H**. The problem of atypicality in LLM-powered psychiatry. *J Med Ethics*. 2025. doi:10.1136/jme-2025-110972.
5. Tsai WC, Aleem AM, Tena J, Rivera-Velazquez M, **Brah HS**, Tripathi S, D'silva M, Nadler JL, Kalyanaraman C, Jacobson MP, Holman T. Docking and mutagenesis studies lead to improved inhibitor development of ML355 for human platelet 12-lipoxygenase. *Bioorg Med Chem*. 2021;46:116347. doi:10.1016/j.bmc.2021.116347.
6. Kholodar SA, Lang G, Cortopassi WA, Iizuka Y, **Brah HS**, Jacobson MP, England PM. Analogs of the dopamine metabolite 5,6-dihydroxyindole bind directly to and activate the nuclear receptor Nurr1. *ACS Chem Biol*. 2021;16(7):1232–1241. doi:10.1021/acscchembio.1c00326.
7. Sharma G, Shah N, Saravanan A, **Brah H**. The design of benzimidazole derivatives to bind to GDP-bound K-RAS for targeted cancer therapy. *J Emerg Investig*. 2024. doi:10.59720/23-166. Senior author.

PREPRINTS & MANUSCRIPTS IN PROGRESS

1. Shah N, Sharma G, Patel V, Wu M, Mummadi A, Taneja A, Shah M, Le GB, Krishna M, **Brah H**. In silico design of blinatumomab: a conventional bispecific T cell engager for targeted immunotherapy. *ChemRxiv*. 2025. doi:10.26434/chemrxiv-2025-25vw8-v2. Senior author.
2. **Brah HS**, et al. Pharmacoeconomic evaluation of GLP-1 receptor agonists and antipsychotic metabolic adverse profiles in severe mental illness: a FAERS analysis. *Manuscript in preparation*. Lead author.

PRESENTATIONS & SYMPOSIA

1. **Brah HS**, et al. Associations between GLP-1RAs and second-generation antipsychotics in severe mental illness: a FAERS pharmacovigilance study. *Academy of Consultation-Liaison Psychiatry Annual Meeting*. 2026. Poster. Lead author.
2. **Brah HS**, Besterman AD, et al. Diagnostic yield of clinical genetic testing in schizophrenia: a systematic review and meta-analysis. *Society of Biological Psychiatry Annual Meeting*. 2025–2026.

3. **Brah H**, Chua EYS, Garcia B. Navigating ethical frontiers in chatbot-assisted psychiatry. *Technology in Medicine Symposium, UC Irvine*. 2024. Oral presentation.
4. Chua EYS, Garcia B, **Brah H**. LLM-powered psychiatry: from back to front. *Caltech Linde Center for Science, Society, and Policy*. 2024. Micro-incubator.
5. **Brah H**, Clark M, Sunahara R. Characterization of the β 2-adrenergic receptor allosteric site. *UC San Diego Research Symposium*. 2022. Poster.

HONORS & AWARDS

- **Phi Beta Kappa**
- **LMU Presidential Citation & Trustee Scholar** — highest university academic honor, 2020
- **Seaver College of Science & Engineering Scholar** — top academic rank, 2020
- **Biochemistry Program Scholar** — 2020
- **Fredericks Comparative Theology Fellow** — 2018

CLINICAL SKILLS & SYSTEMS

- **Clinical:** Addiction medicine and MAT (buprenorphine, naltrexone), acute risk assessment, psychopharmacology, involuntary holds and the LPS framework, capacity evaluation, agitation and crisis management, exposure and response prevention, habit reversal training.
- **EHR:** Epic, CPRS (VA), Cerner, Meditech.
- **Languages:** English (native), Punjabi (advanced), Hindi (advanced), Spanish (beginner).