



Jacob S. Ballon

Associate Professor of Psychiatry and Behavioral Sciences (General Psychiatry and Psychology)

CLINICAL OFFICE (PRIMARY)

- **Psychiatry**

401 Quarry Rd Ste 2114

MC 5723

Stanford, CA 94305

Tel (650) 498-9111 **Fax** (650) 724-9900

ACADEMIC CONTACT INFORMATION

- **Research Contact**

Daniel Virtheim - Research Coordinator

Email dmvirt@stanford.edu

Tel (650) 353-7030

Bio

BIO

Jacob S. Ballon, M.D., M.P.H. specializes in the treatment of people with psychotic disorders including schizophrenia. He is the Co-Director of the INSPIRE Clinic at Stanford which provides interdisciplinary care for people experiencing psychosis. He is also the co-Division Chief for General Adult Psychiatry and Psychology in the Department of Psychiatry. Dr. Ballon completed his residency at Stanford in 2009 and a Schizophrenia Research Fellowship at Columbia University in 2011.

Dr. Ballon maintains an interest in understanding the connections between the brain and the rest of the body as relates to the manifestation and treatment of people who experience psychosis. He works closely with a diverse group of researchers throughout the university and technology community to investigate these connections. He has active projects investigating the metabolic implications of schizophrenia and of psychiatric medication including the association of antipsychotic medication with weight gain and insulin resistance. He also is an active investigator in clinical trials of new medications for the treatment of schizophrenia and the associated side effects of antipsychotic medications.

In understanding the whole-body impact of psychiatric illness, Dr. Ballon also has an active interest in the role that exercise can play in psychiatric treatment. He is the site-principal investigator of an NIMH-funded clinical trial looking at the use of aerobic exercise to improve cognition in people with schizophrenia.

INSPIRE is an innovative interdisciplinary client-centered resource providing respectful evidence-based care to support people to achieve meaningful recovery from psychosis through collaborative partnership with individuals and their families while advancing knowledge and training for a new generation of providers. With a recovery-oriented philosophy, the clinic provides an array of services including psychopharmacology, psychotherapy, and psychosocial evaluations. As a research clinic, they are focused on collaborating with multiple disciplines throughout the university to conduct clinical and basic science research including functional imaging, clinical trials, basic pathophysiology, and genetics.

CLINICAL FOCUS

- Psychiatry
- psychosis
- schizophrenia
- early psychosis

ACADEMIC APPOINTMENTS

- Associate Professor - University Medical Line, Psychiatry and Behavioral Sciences

ADMINISTRATIVE APPOINTMENTS

- Co-Division Chief - Division of General Adult Psychiatry and Psychology, Stanford University, Department of Psychiatry and Behavioral Sciences, (2022- present)
- Medical Director, H2 - Inpatient Psychiatry Unit, Stanford Hospital, (2018-2022)
- Co-Section Chief, Specialty Clinics Section, Stanford University, Department of Psychiatry and Behavioral Sciences, (2017- present)
- Co-Director, INSPIRE Clinic, Stanford University Department of Psychiatry and Behavioral Sciences, (2014- present)
- Chief Resident, Stanford University Department of Psychiatry and Behavioral Sciences, (2008-2009)

HONORS AND AWARDS

- Chairman's Award for Clinical Innovation, Stanford University, Department of Psychiatry and Behavioral Science (2016)
- Fellow, American Psychiatric Association (2014)
- Resident Travel Award, Clinical Trials Workshop, American Society of Clinical Psychopharmacology (2010)
- Janssen Research Scholar, American Psychiatric Institute for Research and Education (APIRE) (2008)
- Resident Travel Award, Clinical Trials Workshop, American Society of Clinical Psychopharmacology (2008)
- PRITE Fellow, American College of Psychiatrists (2006-2008)
- Resident Travel Award, Univ. of Pittsburgh, Schizophrenia Conference (2006)
- Mark B. Fefferman, MD Memorial Award, University of California, San Diego School of Medicine (2005)

PROGRAM AFFILIATIONS

- SPARK at Stanford

PROFESSIONAL EDUCATION

- Fellowship: New York Presbyterian Columbia Dept of Psychology (2011) NY
- M.D., University of California, San Diego (2005)
- Residency, Stanford University , Department of Psychiatry and Behavioral Sciences (2009)
- Schizophrenia Research Fellow, Columbia University (2011)
- M.P.H., Columbia University , Health Policy and Management (2013)

LINKS

- INSPIRE Clinic Homepage: http://med.stanford.edu/psychiatry/patient_care/inspire.html

Research & Scholarship

CLINICAL TRIALS

- A Study to Assess Efficacy and Safety of Adjunctive KarXT in Subjects With Inadequately Controlled Symptoms of Schizophrenia, Recruiting

- An Extension Study to Assess Long-Term Safety and Tolerability of Adjunctive KarXT in Subjects With Inadequately Controlled Symptoms of Schizophrenia, Recruiting
- A Study Evaluating the Safety, Efficacy, and Pharmacokinetics of Miricorilant in Obese Adult Patients With Schizophrenia While Taking Antipsychotic Medications (GRATITUDE II), Not Recruiting
- A Study to Assess the Safety, Efficacy, and Pharmacokinetics of Miricorilant (CORT118335) in Obese Adults With Schizophrenia or Bipolar Disorder Treated With Antipsychotic Medications, Not Recruiting
- A Study to Compare Disease Progression and Modification Following Treatment With Paliperidone Palmitate Long-Acting Injection or Oral Antipsychotics in Participant's With Recent-onset Schizophrenia or Schizophreniform, Not Recruiting
- Bromocriptine for Patients with Schizophrenia and Prediabetes, Not Recruiting
- CONNEX-3: A Study to Test Whether Iclepertin Improves Learning and Memory in People With Schizophrenia, Not Recruiting
- Improving Cognition Via Exercise in Schizophrenia, Not Recruiting
- Journey Study: Evaluate the Efficacy, Safety, and Tolerability of Valbenazine As Adjunctive Treatment for Schizophrenia, Not Recruiting
- Study to Evaluate the Efficacy of ALKS 3831 on Body Weight in Young Adults Who Have Been Recently Diagnosed With Schizophrenia, Schizophreniform, or Bipolar I Disorder, Not Recruiting
- Study to Evaluate the Efficacy, Safety, and Tolerability of Luvadaxistat in Participants With Cognitive Impairment Associated With Schizophrenia, Not Recruiting
- Study to Evaluate the Long-term Safety, Tolerability, and Durability of Treatment Effect of ALKS 3831, Not Recruiting

Publications

PUBLICATIONS

- **Mapping the cellular etiology of schizophrenia and complex brain phenotypes.** *Nature neuroscience*
Duncan, L. E., Li, T., Salem, M., Li, W., Mortazavi, L., Senturk, H., Shahverdizadeh, N., Vesuna, S., Shen, H., Yoon, J., Wang, G., Ballon, J., Tan, et al
2025
- **Long-Term Safety, Tolerability, and Durability of Treatment Effect of Olanzapine and Samidorphan: Results of a 4-Year Open-Label Study.** *The Journal of clinical psychiatry*
Ballon, J. S., Kahn, R. S., Arevalo, C., Dunbar, M., McDonnell, D., Correll, C. U.
2024; 86 (1)
- **BRAIN-WIDE, GENOME-WIDE ANALYSES IDENTIFY CELL TYPES FOR COMPLEX BRAIN PHENOTYPES INCLUDING SCHIZOPHRENIA, PTSD, DEPRESSION, HOT FLASHES, MULTIPLE SCLEROSIS, AND ALZHEIMER'S DISEASE**
Duncan, L., Li, T., Salem, M., Li, W., Mortazavi, L., Shargh, N., Senturk, H., Vesuna, S., Yoon, J., Wang, G., Ballon, J., Tan, L., Pruett, et al
SPRINGER NATURE.2024: 326
- **Inspire self report scale (ISRS): A feasibility study of a Novel self report scale for people with schizophrenia spectrum disorders.** *Journal of psychiatric research*
Chawla, V., Bansal, N., Spelber, D., Desai, A., Frehlich, L., Ballon, J. S., Kalinowski, A., Noordsy, D. L.
2023; 165: 248-253
- **Reductions in synaptic marker SV2A in early-course Schizophrenia.** *Journal of psychiatric research*
Yoon, J. H., Zhang, Z., Mormino, E., Davidzon, G., Minzenberg, M. J., Ballon, J., Kalinowski, A., Hardy, K., Naganawa, M., Carson, R. E., Khalighi, M., Park, J. H., Levinson, et al
2023; 161: 213-217
- **I THINK MY PATIENT MAY BE EXPERIENCING PSYCHOSIS - NOW WHAT? HOW PROVIDERS CAN SUPPORT EARLY IDENTIFICATION AND INTERVENTION.**
Eisen, K., Chari, S., Salaheldin, K., Zepp, C., Ballon, J., Hardy, K.
OXFORD UNIV PRESS INC.2022: S1
- **Increased activation product of complement 4 protein in plasma of individuals with schizophrenia.** *Translational psychiatry*
Kalinowski, A., Lilliental, J., Anker, L. A., Linkovski, O., Culbertson, C., Hall, J. N., Pattni, R., Sabatti, C., Noordsy, D., Hallmayer, J. F., Mellins, E. D., Ballon, J. S., O'Hara, et al
2021; 11 (1): 486

- **Cognition and Exercise: GENERAL OVERVIEW AND IMPLICATIONS FOR CARDIAC REHABILITATION.** *Journal of cardiopulmonary rehabilitation and prevention*
Gaalema, D. E., Mahoney, K., Ballon, J. S.
2021
- **DEVELOPING A LIVED EXPERIENCE ADVISORY COUNCIL IN AN ACADEMIC EARLY INTERVENTION FOR PSYCHOSIS CLINIC.**
Eisen, K., Lean, M., Ballon, J., Zepp, C., Liliental, J., Hardy, K.
OXFORD UNIV PRESS INC.2021: S140
- **Off label use of Aripiprazole shows promise as a treatment for Myalgic Encephalomyelitis/Chronic Fatigue Syndrome (ME/CFS): a retrospective study of 101 patients treated with a low dose of Aripiprazole.** *Journal of translational medicine*
Crosby, L. D., Kalanidhi, S., Bonilla, A., Subramanian, A., Ballon, J. S., Bonilla, H.
2021; 19 (1): 50
- **Roles of inflammation in intrinsic pathophysiology and antipsychotic drug-induced metabolic disturbances of schizophrenia.** *Behavioural brain research*
Prestwood, T. R., Asgariroozbehani, R. n., Wu, S. n., Agarwal, S. M., Logan, R. W., Ballon, J. S., Hahn, M. K., Freyberg, Z. n.
2021: 113101
- **Suicide Reduction in Schizophrenia via Exercise (SUnRISE): study protocol for a multi-site, single-blind, randomized clinical trial of aerobic exercise for suicide risk reduction in individuals with schizophrenia.** *Trials*
Beck-Felts, K., Goodman, M., Ospina, L. H., Wall, M., McEvoy, J., Jarskog, L. F., Ballon, J. S., Bartels, M. N., Buchsbaum, R., Sloan, R. P., Stroup, T. S., Kimhy, D.
2020; 21 (1): 871
- **Ethical Issues in Schizophrenia.** *Focus (American Psychiatric Publishing)*
Beck, N. S., Ballon, J. S.
2020; 18 (4): 428–31
- **How genome-wide association studies (GWAS) made traditional candidate gene studies obsolete** *NEUROPSYCHOPHARMACOLOGY*
Duncan, L. E., Ostacher, M., Ballon, J.
2019; 44 (9): 1518–23
- **VALIDATION OF THE NDSE, A NEW SELF REPORT SCALE FOR PEOPLE WITH PSYCHOSIS**
Noordsy, D., Spelber, D., Ballon, J.
OXFORD UNIV PRESS.2019: S348
- **Growth of Early Intervention in Psychosis in the United States** *INTERVENING EARLY IN PSYCHOSIS: A TEAM APPROACH*
Hardy, K. V., Ballon, J. S., Noordsy, D. L., Adelsheim, S., Hardy, K. V., Ballon, J. S., Noordsy, D. L., Adelsheim, S.
2019: 11–22
- **Improving Cognition via Exercise (ICE): Study Protocol for a Multi-Site, Parallel-Group, Single-Blind, Randomized Clinical Trial Examining the Efficacy of Aerobic Exercise to Improve Neurocognition, Daily Functioning, and Biomarkers of Cognitive Change in Individuals with Schizophrenia.** *Journal of psychiatry and brain science*
Ospina, L. H., Wall, M., Jarskog, L. F., Ballon, J. S., McEvoy, J., Bartels, M. N., Buchsbaum, R., Sloan, R. P., Stroup, T. S., Kimhy, D.
2019; 4
- **Medical Workup for First-Episode Psychosis** *INTERVENING EARLY IN PSYCHOSIS: A TEAM APPROACH*
Kalinowski, A., Ballon, J. S., Hardy, K. V., Ballon, J. S., Noordsy, D. L., Adelsheim, S.
2019: 133–49
- **Role of Aerobic Exercise in the Treatment of Early Psychosis** *INTERVENING EARLY IN PSYCHOSIS: A TEAM APPROACH*
Ospina, L. H., Ballon, J. S., Kimhy, D., Hardy, K. V., Ballon, J. S., Noordsy, D. L., Adelsheim, S.
2019: 265–80
- **Special Populations: College and University Students** *INTERVENING EARLY IN PSYCHOSIS: A TEAM APPROACH*
Hardy, K. V., Ballon, J. S., Chopra, M., Noordsy, D. L., Hardy, K. V., Ballon, J. S., Noordsy, D. L., Adelsheim, S.
2019: 403–15
- **The Impact of Hypomania on Aerobic Capacity and Cardiopulmonary Functioning-A Case Report.** *Frontiers in psychiatry*
Shoval, A., Armstrong, H. F., Vakhrusheva, J., Ballon, J. S., Bartels, M. N., Kimhy, D.

2018; 9: 729

- **Clozapine Titration for People in Early Psychosis A Chart Review and Treatment Guideline** *JOURNAL OF CLINICAL PSYCHOPHARMACOLOGY*
Ballon, J. S., Ashfaq, H., Noordsy, D. L.
2018; 38 (3): 234–38
- **Pathophysiology of drug induced weight and metabolic effects: findings from an RCT in healthy volunteers treated with olanzapine, iloperidone, or placebo** *JOURNAL OF PSYCHOPHARMACOLOGY*
Ballon, J. S., Pajvani, U. B., Mayer, L. S., Freyberg, Z., Freyberg, R., Contreras, I., Rosenbaum, M., Leibel, R. L., Lieberman, J. A.
2018; 32 (5): 533–40
- **Therapeutic Potential of Physical Exercise in Early Psychosis.** *The American journal of psychiatry*
Noordsy, D. L., Burgess, J. D., Hardy, K. V., Yudofsky, L. M., Ballon, J. S.
2018; 175 (3): 209–14
- **Impact of age of onset of psychosis and engagement in higher education on duration of untreated psychosis** *JOURNAL OF MENTAL HEALTH*
Hardy, K. V., Noordsy, D. L., Ballon, J. S., McGovern, M. P., Salomon, C., Stirman, S.
2018; 27 (3): 257–62
- **Intrinsic and Antipsychotic Drug-Induced Metabolic Dysfunction in Schizophrenia** *FRONTIERS IN NEUROSCIENCE*
Freyberg, Z., Aslanoglou, D., Shah, R., Ballon, J. S.
2017; 11: 432
- **Aerobic Exercise Training in People with Schizophrenia: Neural, Cognitive, and Functional Benefits**
Kimhy, D., Vakhrusheva, J., Bartels, M. N., Ballon, J. S., Castren, E., Sloan, R. P.
ELSEVIER SCIENCE INC.2017: S162–S163
- **GENETIC CORRELATION ANALYSIS OF SCHIZOPHRENIA MIRRORS KNOWN EPIDEMIOLOGICAL RELATIONSHIPS AND SUGGESTS NOVEL ASSOCIATIONS**
Duncan, L., Shen, H., Ballon, J. S., Hardy, K., Noordsy, D.
OXFORD UNIV PRESS.2017: S73
- **Genetic Correlation Profile of Schizophrenia Mirrors Epidemiological Results and Suggests Link Between Polygenic and Rare Variant (22q11.2) Cases of Schizophrenia.** *Schizophrenia bulletin*
Duncan, L. E., Shen, H. n., Ballon, J. S., Hardy, K. V., Noordsy, D. L., Levinson, D. F.
2017
- **Verbigeration: An overlooked symptom of a "forgotten syndrome"?** *Bipolar disorders*
Mason, D. P., Tan, M. n., Lee, J. n., Wolstencroft, P. n., Sanborn, K. n., Ballon, J. S.
2017; 19 (8): 710–12
- **Ultra-low dose clozapine treatment for people with early psychosis: Development of tailored treatment guidelines**
Noordsy, D., Ashfaq, H., Ballon, J.
WILEY-BLACKWELL.2016: 177–78
- **The impact of aerobic exercise training on cardiopulmonary functioning in individuals with schizophrenia** *SCHIZOPHRENIA RESEARCH*
Armstrong, H. F., Bartels, M. N., Paslavski, O., Cain, D., Shoval, H. A., Ballon, J. S., Khan, S., Sloan, R. P., Kimhy, D.
2016; 173 (1-2): 116–17
- **Aerobic exercise for cognitive deficits in schizophrenia - The impact of frequency, duration, and fidelity with target training intensity** *SCHIZOPHRENIA RESEARCH*
Kimhy, D., Lauriola, V., Bartels, M. N., Armstrong, H. F., Vakhrusheva, J., Ballon, J. S., Sloan, R. P.
2016; 172 (1-3): 213–15
- **Use of Active-Play Video Games to Enhance Aerobic Fitness in Schizophrenia: Feasibility, Safety, and Adherence** *PSYCHIATRIC SERVICES*
Kimhy, D., Khan, S., Ayanrouh, L., Chang, R. W., Hansen, M. C., Lister, A., Ballon, J. S., Vakhrusheva, J., Armstrong, H. F., Bartels, M. N., Sloan, R. P.
2016; 67 (2): 240–243

- **The Impact of Aerobic Exercise on Brain-Derived Neurotrophic Factor and Neurocognition in Individuals With Schizophrenia: A Single-Blind, Randomized Clinical Trial** *SCHIZOPHRENIA BULLETIN*
Kimhy, D., Vakhrusheva, J., Bartels, M. N., Armstrong, H. F., Ballon, J. S., Khan, S., Chang, R. W., Hansen, M. C., Ayanruoh, L., Lister, A., Castren, E., Smith, E. E., Sloan, et al
2015; 41 (4): 859-868
- **A SINGLE-BLIND RANDOMIZED CLINICAL TRIAL OF AEROBIC EXERCISE IN INDIVIDUALS WITH SCHIZOPHRENIA: IMPACT ON BRAIN-DERIVED NEUROTROPHIC FACTOR AND NEUROCOGNITION**
Kimhy, D., Vakhrusheva, J., Bartels, M. N., Armstrong, H. F., Ballon, J. S., Khan, S., Chang, R. W., Hansen, M. C., Ayanruoh, L., Lister, A. M., Rotundo, L., Castren, E., Smith, et al
OXFORD UNIV PRESS.2015: S83
- **Aerobic fitness and body mass index in individuals with schizophrenia: Implications for neurocognition and daily functioning** *PSYCHIATRY RESEARCH*
Kimhy, D., Vakhrusheva, J., Bartels, M. N., Armstrong, H. E., Ballon, J. S., Khan, S., Chang, R. W., Hansen, M. C., Ayanruoh, L., Smith, E. E., Sloan, R. P.
2014; 220 (3): 784-791
- **Molecular pathophysiology of metabolic effects of antipsychotic medications** *TRENDS IN ENDOCRINOLOGY AND METABOLISM*
Ballon, J. S., Pajvani, U., Freyberg, Z., Leibel, R. L., Lieberman, J. A.
2014; 25 (11): 593-600
- **Emotional granularity and social functioning in individuals with schizophrenia: An experience sampling study** *JOURNAL OF PSYCHIATRIC RESEARCH*
Kimhy, D., Vakhrusheva, J., Khan, S., Chang, R. W., Hansen, M. C., Ballon, J. S., Malaspina, D., Gross, J. J.
2014; 53: 141-148
- **Polypharmacy for schizophrenia** *CURRENT OPINION IN PSYCHIATRY*
Ballon, J., Stroup, T. S.
2013; 26 (2): 208-213
- **METFORMIN AND IMPAIRED GLUCOSE TOLERANCE IN OVERWEIGHT PERSONS WITH SCHIZOPHRENIA**
Ballon, J. S., Hamer, R. M., Catellier, D. J., Stewart, D., Lavange, L., Golden, L., Lieberman, J., Stroup, T., Jarskog, L.
OXFORD UNIV PRESS.2011: 24
- **Signaling pathways in schizophrenia: emerging targets and therapeutic strategies** *TRENDS IN PHARMACOLOGICAL SCIENCES*
Karam, C. S., Ballon, J. S., Bivens, N. M., Freyberg, Z., Girgis, R. R., Lizardi-Ortiz, J. E., Markx, S., Lieberman, J. A., Javitch, J. A.
2010; 31 (8): 381-390
- **Teaching Pearls from the Lost Art of Psychopharmacology** *JOURNAL OF PSYCHIATRIC PRACTICE*
Glick, I. D., Balon, R. J., Ballon, J., Rovine, D.
2009; 15 (5): 423-426
- **HEALTH SERVICES OUTCOMES IN VETERANS WITH SCHIZOPHRENIA AND TRAUMATIC BRAIN INJURY**
Ballon, J. S., Brooks, J. O., King, R., Hoblyn, J.
OXFORD UNIV PRESS.2009: 323
- **Olanzapine** *AMERICAN PSYCHIATRIC PUBLISHING TEXTBOOK OF PSYCHOPHARMACOLOGY, 4TH EDITION*
Ballon, J. S., Wirshing, D. A., Schulz, S., Schatzberg, A. F., Nemeroff, C. B.
2009: 573-98
- **Social functioning in young people at risk for schizophrenia** *60th Annual Convention of the Society-of-Biological-Psychiatry*
Ballon, J. S., Kaur, T., Marks, I. I., Cadenhead, K. S.
ELSEVIER IRELAND LTD.2007: 29-35
- **A systematic review of modafinil: Potential clinical uses and mechanisms of action** *JOURNAL OF CLINICAL PSYCHIATRY*
Ballon, J. S., Feifel, D.
2006; 67 (4): 554-566
- **The effects of novel antipsychotics on glucose and lipid levels** *JOURNAL OF CLINICAL PSYCHIATRY*
Wirshing, D. A., Boyd, J. A., Meng, L. R., Ballon, J. S., Marder, S. R., Wirshing, W. C.

