Curriculum Vitae

Jacob H. Hanna

A. Personal Details

Name:	Jacob (Yaqub) H. Hanna, M.D. Ph.D.
Date of Birth:	August 26, 1979
Place of Birth:	Rameh, Galilee, Israel
Citizenship:	Israeli
Ethnicity:	Palestinian
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B. Education

2007-2011 **Postdoctoral studies**, Whitehead Institute for Biomedical Research – MIT, Cambridge, MA, USA
Field of Study: Pluripotency and Epigenetic Reprogramming
Advisor: Prof. Rudolf Jaenisch

2001-2007 **M.D.**, The Hebrew University of Jerusalem – Hadassah Hospital, Jerusalem, Israel
Field of Study: Clinical Medicine (including 1-year mandatory general internship)
Graduated with distinction (**top 5% nationwide**)

2001-2007 **Ph.D.**, The Hebrew University of Jerusalem, Jerusalem, Israel
Field of Study: Immunology
Thesis Title: Novel Molecular and Functional Properties of Human NK Subsets
Advisor: Prof. Ofer Mandelboim
Graduated with distinction (***summa cum laude***)

1998-2001 **B.Med.Sc.**, The Hebrew University of Jerusalem, Jerusalem, Israel
Field of Study: Biomedical Studies
Graduated with distinction (***summa cum laude***)

C. Employment History

10/2023-present	**Full Professor** Department of Molecular Genetics, Faculty of Biochemistry Weizmann Institute of Science, Rehovot, Israel
10/2018-09/2023	**Associate Professor (with Tenure)** Department of Molecular Genetics, Faculty of Biochemistry Weizmann Institute of Science, Rehovot, Israel
03/2011-09/2018	**Senior Scientist (Assistant Professor, Principal Investigator)** Department of Molecular Genetics, Faculty of Biochemistry Weizmann Institute of Science, Rehovot, Israel

D. Academic Administration

1. The Department of Molecular Genetics Student Seminar Series, Weizmann Institute of Science, Organizer (2011-2012)

2. The Amos de-Shalit Summer School for Life Sciences, Weizmann Institute of Science, Organizer (2013)

3. Friends of the Weizmann Institute of Science - international fundraising activities: USA (2009, 2013, 2015, 2018, 2019, 2021, 2022, 2023), Canada (2011, 2014, 2016, 2020), Zurich (2013), Australia (2015), London (2016, 2022), Belgium (2017), Mexico (2017).

4. Scientific Council, Weizmann Institute of Science, Representative of the Faculty of Biochemistry Senior Scientists (2012, 2016)

5. Member of the LSV5 committee for evaluation and promotion of staff scientists at the Weizmann Institute (for 2 consecutive years).

E. Other Appointments

1. Journal Editorial Board Member:
   - ***Stem Cell Reports***, published by Cell Press (2013-2015)
   - ***Stem Cell Reviews and Reports***, published by Springer Link (2014- present)
   - ***Genomics, Proteomics and Bioinformatics***, published by Elsevier (2015- present)
   - ***Cell Research***, published by Nature Publishing Group (2015- present)
   - ***Journal of Stem Cell Research and Medicine***, published by Oat publishing (2016-present)
   - ***Journal of Stem Cell Research and Regenerative Medicine***, published by the OMICS publishing group (2016-present)
   - ***Stem Cells***, published by AlphaMed press (2016-present)
   - ***Stem Journal,*** published by IOS press (2020-present)

2. Scientific Advisory and/or Board Member:

- **Renewal Bio Inc., Rehovot, Israel. Co-founder and Chief Scientific Adviser.** (2022-present)
- **Biological Industries,** Beit Haemek, Israel (2016-2020)
- **Accelta Ltd.,** Haifa, Israel (2016-2019)

3. Executive Board Member:
   - **Israel Society for Stem Cell Research** (ISCS), Israel (2016-2022)

4. Member, MAOF Faculty Award Committee for Early Career Faculty Arab Scientists and PhD Students in Israel, Israel (2015-2021)

5. Tenure case and promotion confidential evaluator of candidates – from University of Singapore (A-STAR), University of Guangzhou, IMBA, Istanbul University, Lunefeld Research Institute – University of Toronto, the Salk Institute, Singapore University Harvard University, UCSD and UCLA, MRC Laboratory of Molecular biology - LMB, Memorial Sloan Kettering-MSKCC, Technion

6. EMBO long-term postdoctoral fellowship evaluator and interviewer (assessed ten candidates since 2013)

7. Member, The BIRAX Fellowship exchange program selection committee, British Council and British Embassy (2013-2018)

8. Scientific reviewer for granting agencies, including:

   *Israel Science Foundation (ISF), US-Israel Bi-national Grant Program (BSF), GIF Program, ERC Starting, Consolidator and Advanced Grant Programs, The UK Biotechnology and Biological Sciences Research Council (BBSRC), Cancer Research UK, Japan-Israel Bi-National Grant Program, Consolider Grant Program from the Spanish Ministry of Industry, NOW- Dutch Division for Life Sciences, Hebrew University-Hadassah Medical School Internal Grants, A*Star Singapore Institutional Grants, Research by Design (RbD) program by the University of Toronto, Regenerative Medicine Program by the State of Minnesota, Academy of Finland, National Research Foundation of Singapore, National Research Foundation of Estonia, Research Grants Council (RGC) of Hong Kong, ETH Zurich internal grants, Human Frontiers Science Program (HFSP), Wellcome Trust, FWF Austria, Novo Nordisk Foundation*

9. Panel review member for granting agencies:
   - Academy of Finland – Centers of Excellence (CoE) flagship program (2017, 2019)
   - Israeli Ministry of Science (MOST) – Israel-China collaborative granting program (one year)
   - BSF grant review committee (for one year)
   - ISF grant review panel (for one year)

10. Invitations to nominate others for leading international prizes:
    - The Nobel Assembly at Karolinska Institute – Nobel prize in Physiology and Medicine (2023)

11. Manuscript reviewer for:

    Nature, Science, Cell, Cell Stem Cell, Cell Metabolism, Cell reports, Molecular Cell, eLife, Genes & Development, Science Advances, Stem Cell Reports, Nature Biotechnology, Nature

Immunology, Nature Cell Biology, Nature Genetics, Nature Materials, Nature Communications, Nature Medicine, Nature Nanoscience, Nature Methods, Nature Molecular and Structural Biology, Nature Protocols, Cell Research, Stem Cells, Stem Cell Research, Stem Cells and Development, Stem Cells International, Stem Cells Reviews and Reports, PLoS Biology, PLoS Computational Biology, PLoS Genetics, PLoS One, EMBO, EMBO reports, Development, PNAS, Scientific Reports, Gene, RNA, Nucleic Acid Research, Blood, OncoTarget, OncoImmunology, Journal of Biological Chemistry (JBC), Genome Research, BMC Developmental Biology, Clinical Microbiology and Infection, Reproductive Biology and Endocrinology, Open Biology, JoVE, Current Medical Chemistry, BMC Cancer, Annals of the New York Academy of Sciences, iScience, Nature Neuroscience, Nature Biomedical Engineering, Neuron

12. Membership in international organizations:

    2007-present: International Society for Stem Cell Research (ISSCR)
    2011-present: Israel Society for Stem Cell Research (ISCS)
    2011-present: Palestinian Society for Biomedical Research
    2011-present: The Israel Society for Developmental Biology (TISDB)
    2015-present: The Israel Society for Biochemistry and Molecular Biology (ISBMB)
    2015-present: The European Foundation for the Study of Diabetes (EFDS)
    2015-present: The International Society of Developmental Biology (SDB)

13. Teaching experience:

    - Stem Cell Biology Course, Guest Lecturer, Feinberg Graduate School, Weizmann Institute (2014/2015)
    - Stem Cell Biology Course, Co-organizer and Lecturer, Feinberg Graduate School, Weizmann Institute (2016/2017)

14. Member of 16 Ph.D. student thesis and/or exam committees

15. Member of 12 M.Sc. exam committees

F. International Recognition

Prizes and Recognitions

2023 **Time magazine** listed Hanna lab human embryo model among **top discoveries of the year 2023**

2023 **Nature Methods** journal has selected Synthetic Embryo Model Platform as **Method of the Year 2023**

2023 International **IVI Foundation Award** for Basic Research in Reproductive Medicine

2023 Manuscript describing Mouse Stem Cell Derived Embryo Models among the 10 selected "**Best of Cell 2022**" publications by ***Cell*** journal editors

2023	Hanna lab 2022 paper on Mouse Stem Cell Derived Embryo Models listed among top scientific **breakthroughs of the year 2022 by the Atlantic magazine** and **The Week** Magazine. It has also been marked among Research Areas to Watch in 2023 by **Nature** and **Nature Methods**.
2022	Named a **Paul Harris Fellow** by the Rotary International Foundation in recognition for Scientific Achievements
2021	Selected as the **top thinker** for the year 2021 by **Prospect magazine** (UK)
2021	Hanna lab 2021 paper on Ex Utero Embryogenesis listed among top scientific **breakthroughs of the year 2021 by Science journal**
2021	Research in Hanna lab was covered in a dedicated **Nature Outlook** article
2021	Robert Edwards honorary lecture and **lifetime achievement award** by the Congress on Obstetrics, Gynecology, and Infertility (COGI) meeting in Berlin.
2018	Elected as an **EMBO member**
2017-2024	**Research Professorship** grant and award, Israel Cancer Research Fund (ICRF)
2017 & 2023	Consolidator Scientist Award and Grant, European Research Council (**ERC-CoG** Program)
2016	**The Segal Family Award** for Excellence in Stem Cell Biology, University of Michigan, USA
2016	Manuscript describing human *in vitro* germ cell differentiation among the 10 selected "**Best of Cell 2015**" publications by ***Cell*** journal editors
2014	**The Kimmel Prize** for outstanding scientist, Weizmann Institute of Science
2014	Selected as a member of the **Young Israel Academy**
2014	Selected among "**40 under 40**" most innovative young scientists by ***Cell*** journal
2013	**Robertson Innovator Award**, New York Stem Cell Foundation (**NYSCF**)
2013	**Krill Prize** for outstanding early career scientists, Wolf Foundation
2013	**Rappaport Prize** for Promising Young Researcher in the field of Biomedical Research, The Bruce and Ruth Rappaport Foundation
2012	EMBO Young Investigator Award (**EMBO-YIP**)
2011	Starting Scientist Award and Grant, European Research Council (**ERC-StG** Program)
2011	Inaugural Award for Excellence in Biomedical Research, **Palestinian Society for Biomedical Research**

2011-2014 **Alon Foundation Scholar** (program for distinguished junior faculty in Israeli academia)

2010 **Clore Prize** for an outstanding new scientist, Weizmann Institute of Science

2010 **TR35 Young Innovator Award**, for leading international innovators under the age of 35, MIT's Technology Review Magazine

2009-2010 **Genzyme Postdoctoral Prize** and Fellowship

2007-2009 Postdoctoral Fellowship, **Helen Hay Whitney Foundation** – Novartis Fellow

2007-2009 Postdoctoral Fellowship, **Human Frontiers Science Program** (HFSP) (declined)

2007-2008 Postdoctoral Fellowship, **EMBO** (declined)

2007 Hebrew University Medical School Excellence Award for graduating M.D.-Ph.D. students, Hebrew University of Jerusalem

2007 **Max Schlomiuk Award** for Ph.D. students graduating with distinction (*summa cum laude*), Hebrew University of Jerusalem

2007 Graduated among the top 5 percent of Israeli medical school M.D. graduates

2005 **Gertrude Kohn Award** for outstanding scientific work in human genetics, Hebrew University of Jerusalem

2005 Member of the official delegation to the 55th International Nobel Prize Laureates Symposium in Lake Constance, Germany

2005-2006 Israel Ministry of Education Scholarship for Ph.D. students

2004 Fellowship at Mt. Sinai Hospital for distinguished M.D. students, Hebrew University of Jerusalem

2004-2006 **Golda Meir Fund** Scholarship for Ph.D. students

2004-2006 **Foulkes Foundation Award** and Scholarship for M.D.- Ph.D. students, The Foulkes Foundation

2003 **Wolf Foundation** Award for **Ph.D. students**, Wolf Foundation

2002 Faculty of Medicine Award for B.Med.Sci. students graduating with distinction (*summa cum laude*), Hebrew University of Jerusalem

1999-2001 Medical School's **Dean's List** Excellence Award (awarded in all 3 years of undergraduate studies), Hebrew University of Jerusalem

International Meetings

Invited Talks at International Conferences:

10/2024 The Quebec Reproduction Network Annual Meeting, Montreal, Canada. **(Keynote Speaker)** (to be)

06/2024 Symposium on Human Embryonic Research, College De France, Paris, France. (to be)

03/2024 Invited speaker at SRI (Society of Reproductive Investigation) mini-symposium meeting, Vancouver, Canada. (to be)

12/2023 The Foundation for Reproductive Medicine Annual Meeting, New York, USA. (to be)

10/2023 International Society of Stem Cell Research (ISSCR) Symposium on Integrated Embryo Models (Virtual conference due to latest developments on human embryo models).

09/2023 Meeting on Human Embryo Models organized by University of Iceland and NORFOSK, Reykjavik, Iceland. **(Keynote Speaker)**

09/2023 The Center for Organismal Studies and EMBO Summer School on "Limits of Life", Heidelberg, Germany.

08/2023 The 9th International Symposium on Primate Research, Kunming, China.

07/2023 Society for the Study of Reproduction 2023 Annual Meeting on "Reproductive Sciences: From Innovation to Impact", Ottawa, Canada

07/2023 The Society for Developmental Biology (SDB) 2023 annual meeting, Chicago, USA.

06/2023 The 87th Cold Spring Harbor Laboratory Symposium on Quantitative Biology addressing Stem Cells, Cold Spring Harbor, NY, USA.

05/2023 The Stem Cell Niche Conference, Copenhagen Denmark **(Opening Lecture)**

05/2023 The University of Washington Institute for Stem Cell & Regenerative Medicine (ISCRM) 2023 Stem Cell Symposium, Seattle, USA.

04/2023 The 10th International IVIRMA Congress, Malaga, Spain.

04/2023 The first Dutch organoid meeting (OrganoidNL), Amsterdam, the Netherlands. **(Keynote Speaker)**

03/2023 European Society for Molecular Imaging (ESMI) Annual Meeting (EMIM 2023), Salzburg, Austria. **(Plenary Lecture)**

03/2023 ASHBI Symposium on Constructing and Deconstructing Embryos, Kyoto University, Kyoto, Japan.

03/2023 Cold Spring Harbor Asia Symposium on human development, Awaji, Japan

02/2023 International conference on "New Approaches to Early Embryogenesis and Epigenetics", Weizmann Institute, Rehovot, Israel

01/2023 IETS DABE (Domestic Animal Biomedical Embryology) 2023 conference, Lima, Peru

11/2022 Conference on "Cellular Plasticity", Andalucía, Spain

07/2022 The 38th Annual Meeting of the European Society of Human Reproduction and Embryology (ESHRE), Milan, Italy

06/2022 Symposium on Differentiation and Regulation in Synthetic Embryoids, College De France, Paris, France

06/2022 EMBL-IBEC Conference on Engineering Multicellular Systems, Barcelona, Spain

03/2022 Ethics Symposium on Synthetic Embryology, Karolinska Institute, Stockholm, Sweden

03/2022 ISSCR regional meeting on stem cell biology, Jerusalem, Israel

12/2021 30th Annual Congress on Controversies in Obstetrics, Gynecology and Infertility (COGI), Berlin, Germany **(Edward Roberts honorary Keynote Lecture)**

12/2021 Regenerative Biology seminar series, Caltech, USA *(via zoom)*

10/2021 The 4th Aegean Stem Cell Conference, Kos, Greece

09/2021 Israel – Broad Institute joint annual international symposium, Cambridge, USA (via zoom)

07/2021 Symposium on Developmental Biology, Kyoto University, Japan (via zoom)

12/2020 24th Research Postgraduate Symposium on "Leveraging the revolution in resolution: Modernizing medical data", University of Hong Kong, Hong Kong **(Keynote Lecture)** (via zoom)

02/2020 The 1st Weizmann Institute – Denmark symposium on Stem Cells and Regenerative Medicine", Copenhagen, Denmark

10/2019 The 3rd Aegean Stem Cell Conference, Crete, Greece

09/2019 Stem Cell Biology Conference. – Cold Spring Harbor Symposium, NY, USA

11/2018 The 6th Annual meeting of Chinese Society for Regenerative Cell Biology, Guangzhou, China

10/2018 EMBO Members Meeting, Heidelberg, Germany

04/2018 EMBL meeting on Epitranscriptomics, EMBL, Heidelberg, Germany

03/2018 The 4th BIRAX Stem Cell Conference, The Crick Institute, London, UK

02/2018 Stem Cell Symposium by the Austrian Society for Stem Cell Research, the IMP and IMBA, Vienna, Austria

10/2017 Mexican Society Stem Cell Research Annual Conference, Queretaro, Mexico **(Keynote speaker)**

09/2017 The 2nd Aegean Stem Cell Conference, Rhodes, Greece

11/2016 Conference on Advances in Cell Engineering, Flanders Institute of Biotechnology, University of Leuven, Leuven, Belgium

10/2016 Molecular Life of Stem Cells Conference, organized by Helmholtz-Muenchen, Ljubljana, Slovenia **(Keynote speaker)**

09/2016 EMBO Workshop on Nuclear Function and Cell Fate Choice, Kyllini, Greece

08/2016 The 7th International Symposium on Primate Research, Yunnan, China

07/2016 Annual ESHRE Meeting, European Society of Human Reproduction and Embryology, Helsinki, Finland **(Keynote speaker)**

06/2016 The 4th Annual Broad-ISF Cell Circuits Symposium, Broad Institute, MIT, Cambridge, USA

04/2016 The 3rd BIRAX Stem Cell Conference, Oxford University, Oxford, UK

12/2015 The 1st Hong Kong International Conference on Stem Cells and Regenerative Medicine, Hong Kong, China

12/2015 The 4th Annual meeting of Chinese Society for Regenerative Cell Biology, Guangzhou, China

11/2015 Human Models and Technology for Regenerative Medicine Conference, Karolinska Institute, Sweden

11/2015 NIH Workshop on Cross-Species Introduction of Human Stem Cells in Early Embryos, Bethesda, USA

11/2015 The 8th Spanish Society for Gene and Cell Therapy Annual Meeting, San Sebastian, Spain **(Keynote speaker)**

10/2015 The 2nd International Congress on Stem Cells and Cellular Therapies, Antalya, Turkey

10/2015 Stem Cell Biology – Cold Spring Harbor Symposium, NY,

08/2015 The 11th Annual Meeting of the Korean Society for Stem Cell Research, Seoul, Korea **(Keynote speaker)**

08/2015 Arolla EMBO Workshop on Cell and Developmental Systems, Arolla, Switzerland

07/2015 Genomics Frontiers Symposium, Beijing Institute of Genomics - CAS, Beijing, China **(Keynote speaker)**

06/2015 Stem Cell Reprogramming Mini-Symposium, University of Helsinki, Helsinki, Finland **(Keynote speaker)**

05/2015 The 3rd Cell Reprogramming Australia Conference, Brisbane, Australia **(Keynote speaker)**

05/2015 Annual Meeting of the Dutch Stem Cell Society, Utrecht, Holland **(Keynote speaker)**

04/2015 Broad Institute - Harvard University - Harvard Stem Cell Institute Symposium on Pluripotency and Reprogramming, Cambridge, USA

03/2015 Keystone Symposium on Transcriptional and Epigenetic Influences on Stem Cell States, Steamboat Springs, Colorado, USA

02/2015 The 5th Brain Research Institute (BRI) International Symposium: Gene Editing Technology, Nigata, Japan

11/2014 Annual Meeting of the Molecular Biology Society of Japan, Yokohama, Japan

10/2014 The 5th New York Stem Cell Foundation Meeting on Stem Cell Translation, New York, USA

09/2014 The 1st Annual Meeting of the Belgium Stem Cell Society, Ghent, Belgium **(Keynote speaker)**

06/2014 The 10th Annual Meeting of the Swiss Stem Cell Network (SSCN), Switzerland

05/2014 Pasteur Institute Symposium on Reprogramming, Paris, France

04/2014 Cold Spring Harbor Laboratory Meeting on Gene Expression & Signaling in the Immune System, Cold Spring Harbor, New York, USA

03/2014 Gordon Conference on Reprogramming Cell Fate, Galveston, Texas, USA

02/2014 Keystone Symposium on Transcriptional Regulation, Santa Fe, New Mexico, USA

11/2013 Singapore Stem Cell Society Annual Meeting, Singapore **(Keynote speaker)**

11/2013 Epigenomics of Common Diseases Conference, The Wellcome Trust, Cambridge, UK

10/2013 Till & McCulloch Meeting on Stem Cells, Canadian Stem Cell Network, Banff, Alberta, Canada **(Keynote speaker)**

10/2013 Cambridge Epigenetics Club, Cambridge, UK

07/2013 International Stem Cell Conference, Hebrew University, Jerusalem, Israel

06/2013 International Society for Stem Cell Research (ISSCR) 11th Annual Meeting, Boston, Massachusetts, USA

06/2013 American Association for Cancer Research (AACR) Conference - Chromatin and Epigenetics in Cancer, Atlanta, Georgia, USA

10/2012 EMBO Meeting on Germ Cells and Immortality, Heidelberg, Germany

04/2011 Cold Spring Harbor Symposium on Stem Cell and Therapeutics, Cold Spring Harbor, New York, USA

Invited Seminars and Visits to Institutes Abroad:

06/2024 CNIO Distinguished Lecture Series, Madrid, Spain (to be)

02/2024 Invited seminar speaker at the Center for Biomolecular and Tissue Engineering at Duke University, North Carolina, USA (to be)

12/2023 Institute for Regenerative Medicine (IRM) at the University of Pennsylvania (UPEN) Distinguished Lecture Series, Philadelphia, USA (to be)

12/2023 USC Stem Cell 2023–2024 Distinguished Speaker Seminar Series, Los Angeles, USA (to be)

12/2023 Weill-Cornell Department of Regenerative Seminar Series, New York, USA (to be)

12/2023 The Jackson Laboratory for Genomic Medicine's Distinguished Seminar Series, New York USA (to be)

06/2023 The Gurdon Institute Seminar Series, University of Cambridge, UK,

04/2023 Roche Institute for Translational Bioengineering (ITB) Seminar Series, Basel, Switzerland

04/2023 Department of Biosystems Science & Engineering Seminar Series at ETH, Basel, Switzerland

03/2023 MDB Seminar Series Committee at the Cincinnati Children's Hospital Research Foundation, Cincinnati, USA

02/2023 Institute of Molecular Embryology and Genetics Invited Seminar Series, University of Kumamoto, Japan

02/2023 Hertzberg Schechter Invited Lecture, Southern California Stem Cell Seminar Series, UCSD, San Diego, USA

10/2022 Medicine by Design (MbD) Initiative, Seminar Series, University of Toronto, Toronto, Canada

09/2022 Stem Cell Seminar series, Mount Sinai School of Medicine, NYC, USA

09/2022 Stem Cell Seminar series, Columbia University, NYC, USA

09/2022 Stem Cell Seminar series, Albert Einstein School of Medicine, NYC, USA

09/2022 Institute for the Advanced Study of Human Biology (WPI-ASHBi), Kyoto University, Japan (via zoom)

09/2021 Stem cell seminar series, Developmental biology program, Kumamoto University, Japan (via zoom)

04/2021 International online lecture series on Gastrulation (via Zoom)

02/2020 Department of Developmental Biology Seminar Series, University of Toronto, Toronto, Canada

08/2018 Stem Cell Seminar Series, University of Helsinki, Helsinki, Finland

12/2017 Division of Genetics, Craniofacial Center Seminar Series, UCSF, San Francisco, USA

12/2017 Department of Cellular Physiology, National Autonomous University of Mexico (UNAM), Mexico City, Mexico

12/2017 Life Science Colloquium, CINVESTAV – Polytechnic Institute, Mexico City, Mexico

05/2017 University of Pamplona, Pamplona, Spain

04/2017 Spanish National Cancer Research Center (CNIO), Madrid, Spain

11/2016 Stem Cell Center, University of Minnesota, Minneapolis, USA

10/2016 Stem Cell Center, Yale University, New Haven, USA

10/2016 State Key Laboratory of Experimental Hematology, CAS, Tianjin, China.

01/2016 Center for Regenerative Medicine, University of Edinburgh, Edinburgh, UK

12/2015 Department of Biological Sciences Seminar Series, University of Basel, Basel, Switzerland

09/2015 Department of Genetics Seminar Series, Columbia University, NYC, USA

07/2015 Stem Cell Seminar Series, Peking University, Beijing, China

05/2015 Stem Cell Seminar Series, Monash University, Monash, Australia

05/2015 Victor Chang Research Institute, Sydney, Australia

11/2014 Stem Cell Seminar Series, Kyoto University, Kyoto, Japan

01/2014 Broad Institute Seminar Series, MIT, Cambridge, Massachusetts, USA

01/2014 Harvard-MGH Cancer Seminar Series, Boston, Massachusetts, USA

01/2014 Boston University Regenerative Medicine Seminar Series, Boston, USA

12/2013 Life Sciences Seminar Series, EPFL, Lausanne, Switzerland

12/2013 Life Sciences Seminar Series, IFOM-IEO, Milan, Italy

06/2013 Life Sciences Colloquium, University of Brussels, Brussels, Belgium

Organization of Professional Meetings and Workshops

2023 Co-Organizer and Program Committee Member, International conference on "New Approaches to Early Embryogenesis and Epigenetics", Weizmann Institute, Israel

2021 Co-Organizer and Program Committee Member, The 4th Aegean Stem Cell Conference, Kos, Greece

2020 Co-Organizer, The 1st Weizmann Institute – Denmark symposium on Stem Cells and Regenerative Medicine", Copenhagen, Denmark

2019 Co-Organizer and Program Committee Member, The 3rd Aegean Stem Cell Conference, Crete, Greece

2019 Co-Organizer and Program Committee Member, The 8th International conference by the Israeli Society of Stem cell research, Tel Aviv, Israel

2017 Co-Organizer and Program Committee Member, The 2nd Aegean Stem Cell Conference, Rhodes, Greece

2015 Program Committee Member, The 12th Annual Meeting of the International Society for Stem Cell Research (ISSCR), Stockholm, Sweden.

2013 Organizer, The 2nd Helmsley Stem Cell Symposium, Weizmann Institute of Science

2012 Organizer, The 1st Helmsley Stem Cell Symposium, Weizmann Institute of Science

G. Scientific Productivity

Competitive or Solicited National and International Grant Awards

'funding ID'	**Period**	**Total Amount** (for Hanna group)
ERC Consolidator Grant (ERC-CoG) - "Towards Artificial Human Embryoid Models: Engineered and Synthetic Platforms for Ex Utero Mammalian Embryogenesis"	2023-2028	2,000,000 €
Kimmel Center for Stem Cell Research - Weizmann Institute - "Ex Utero Synthetic Mouse Embryogenesis"	2023-2024	25,000 $
MBZUAI-WIS Joint Program for Artificial Intelligence Research - "Live Imaging and Lineage Tracing of Mouse Embryo Development ex-utero" *(Additional Co-PI: Prof. Hisham Cholakkal, MBZUAI, Dubai, UAE)*	2022-2025	450,000 $
Kimmel Center for Stem Cell Research - Weizmann Institute - "Ex Utero Embryogenesis of Rabbit Embryos"	2022-2023	35,000 $
FAMRI - "Novel humanized stem cell-based platforms for modelling lung disease and development ". (Subject to annual renewal evaluation by a dedicated scientific steering committee).	2020-2024	625,000 $
Minerva Foundation - Weizmann Institute - "The role of Notch signaling in human naive pluripotency"	2020-2022	150,000 €
Kimmel Center for Stem Cell Research - Weizmann Institute - "Chromatin interactions during deterministic iPSC reprogramming"	2019-2020	35,000 $
Israel Science Foundation (ISF) – Regular Research Grant - " Deciphering Molecular Mechanisms Regulating Reprogramming of Mammalian Naive iPSCs "	2020-2024	300,000 $
Kimmel Center for Stem Cell Research - Weizmann Institute -	2018-2019	35,000 $

"Modeling FTO role in causing human microcephaly via using iPSC derived organoids"		
BSF – Research grant -"METTL3-dependent regulation of cardiac hypertrophy" *(Additional Co-PI: Dr. Federica Accornero, Ohio State University, USA)*	2018-2022	270,000 $ (includes matching)
Israel Science Foundation (ISF) – Regular Research Grant - "Pluripotent Cell Based Dissection of the Role of m6A RNA Epigenetic Modification in Development and Disease"	2017-2019	215,000 $
Israel Cancer Research Fund (ICRF) - Research Professorship - "New cancer therapy related mechanistic and applied frontiers with patient specific iPSCs"	2017-2024	350,000 $
ERC Consolidator Grant (ERC-CoG) - "The molecular and functional foundations of alternative human naïve like pluripotent stem cell states"	2017-2022	2,000,000 €
Weizmann-Yale collaborative program - "Defining the role of altered m6A landscape in causing microcephaly associated with human FTO enzyme deficiency" *(Additional Co-PI: Prof. Andrew Xiao, Yale University, USA)*	2017-2018	30,000 $
Weizmann-UK collaborative program - "Regenerative potential of human pluripotent stem cells and their differentiated progeny revealed through transplantation into mouse embryos" *(Additional Co-PI: Prof. Roger Pedersen, Cambridge University, UK)*	2017-2019	50,000 $
ERC Proof of Concept Grant (ERC-PoC) - "FORMAT - a novel medium FOr Revolutionizing stem cell MAnufacturing Technologies"	2016-2017	150,000 €
Kimmel Center for Stem Cell Research - Weizmann Institute - "Translation dynamics during iPSC reprogramming"	2016-2017	30,000 $
Benoziyo Center for Neuronal Studies - Weizmann Institute - "Generating and characterizing iPSCs from FTO mutant patients"	2016-2017	20,000 $
WIS - U. Michigan Segal Award and Program - "Toward generation of functional human oocytes" *(Additional Co-PI: Dr. Ariella Shikanov, U. Michigan, USA)*	2016-2017	25,000 $
KAMIN grant by Chief Scientist Office - "Xeno free medium for manufacturing Human naïve stem cells"	2015-2017	225,000 $
Human Frontier Research Program (HFSP) - Young Investigator Research Grant - "Deciphering chromatin dynamics during programming and reprogramming of pluripotent cells" *(Additional Co-PI: Prof. William Greenleaf, Stanford University, USA)*	2015-2018	375,000 $
M.D. Moross Institute for Cancer Research - Weizmann Institute - "Translation dynamics during iPSC reprogramming"	2015-2016	50,000 $

Kimmel Center for Stem Cell Research - Weizmann Institute - "RNA methylation in human pluripotent stem cells"	2015-2016	40,000 $
WIS-EPFL program - "Epigenetic and transcriptional landscape alterations at endogenous retroelements during reprogramming to pluripotency" *(Additional Co-PI: Prof. Didier Trono, EPFL, Switzerland)*	2015-2017	100,000 $
Israel Science Foundation (ISF) - NSFC program - "Towards optimal somatic cell reprogramming though manipulation of MBD3 and NCoR/SMRT repressor complexes " *(Additional Co-PIs: Prof. Duanqing Pei and Dr. Miguel Esteban, Guangzhou University - IGBH, China)*	2014-2017	415,000 $ + 20,000 $ (additional ISF-INCPM grant)
Israel Science Foundation (ISF) - Morasha/Legacy Biomed - "Advanced stem cell based engineered platforms for modelling of human disease and development "	2014-2017	330,000$ + 20,000 $ (additional ISF-INCPM grant)
Israel Cancer Research Fund (ICRF) - Research Career Development Award *(2nd Term)*	2014-2017	105,000 $
New York Stem Cell Foundation (NYSCF) - Robertson Innovator Research Award	2014-2018	1,500,000 $
FAMRI - "Novel humanized stem cell-based platforms for modelling lung disease and development "	2014-2019	625,000 $
Weizmann Institute - Kimmel Investigator Research Award	2014-2020	1,000,000 $
Minerva Foundation - Weizmann Institute - "High-resolution mapping of chromatin and transcriptional dynamics during somatic cell reprogramming to pluripotency "	2014-2016	150,000 €
Israel Science Foundation (ISF) - ICORE program – "RNA & chromatin"	2013-2017	125,000 $
British Israeli Collaborative Initiative in Regenerative Medicine (BIRAX) - "Germ line, stem cells and epigenetic determinants of reprogramming" *(Additional Co-PI: Prof. M. Azim Surani, Cambridge University, UK)*	2012-2015	200,000 £
Israel Science Foundation (ISF) - Broad Institute- "Erasure and maintenance of DNA methylation in development " *(Additional Co-PI: Prof. Alex Meissner, Harvard University, USA)*	2012-2013	50,000 $
E-Rare-2 FP7 Program - "Understanding coenzyme Q10 deficiency syndrome with iPSCs"	2012-2014	60,000 $
Fritz Thyssen Stiftung Foundation - "Defining and characterizing a new naïve pluripotent state in human reprogrammed iPSCs"	2012-2014	100,000 €
Israel Science Foundation (ISF) grant - "Understanding the epigenetic stability of the pluripotent and differentiated cell states"	2011-2015	195,000 $
Israel Science Foundation (ISF) - Equipment for new starting	2011	100,000 $

lab		
ERC Starting Grant (ERC-StG) - "Uncovering the mechanisms of epigenetic reprogramming of pluripotent and somatic cell states"	2011-2016	1,960,000 €
Israel Cancer Research Fund (ICRF) - Research Career Development Award – "The role of ERAS and RHO kinase signaling in human naïve pluripotency regulation"	2011-2014	105,000 $
Israel Science Foundation (ISF) - BIKURA Individual - "Defining a new naïve pluripotent state in human iPSCs"	2011-2014	210,000 $

Students and Postdoctoral Fellows

Current Members

1. **Alejandro Aguilera-Castrejon** – M.Sc. student (2017-2018), PhD. Student (2018-present) (Accepted a Junior group leader position at HHMI-Janelia in the US, and will start in March 2024). Outstanding graduation award from FGS presented at the latest graduation ceremony.
2. **Bernardo Oldak** M.D. **–** Ph.D. student (2019 - present)
3. **Nir Livnat -** M.Sc. student (2019-2021), Ph.D. student (2021-present)
4. **Shadi Tarazi** – Ph.D. student (2020 - 2023), Postdoc (2023-present)
5. **Max Rose** – M.Sc. student (2020 - present)
6. **Emilie Wildschutz** – M.Sc. student (2021 - present), Ph.D. student (2023-present)
7. **Carine Joubran** – M.Sc. student (2021 - present), Ph.D. student (2023-present)
8. **Dr**. **Francesco Roncato** Ph.D. – Postdoctoral fellow (2021-present)
9. **Dr**. **Vladislav Bondarenko** Ph.D. – Postdoctoral fellow (2023-present)
10. **Mehmet Yunus-Comar** M.Sc. – Ph.D. student (2022 - present)
11. **Alperen Yilmaz** M.Sc. – Ph.D. student (2022 - present)

Former Students and Postdocs

1. **Dr. Abed Al-Fattah Mansour** – Postdoctoral fellow (2011-2013) – An Assistant Professor at Hebrew University, Jerusalem Israel. Awarded EMBO and HFSP postdoctoral fellowships, and then ERC Starting grant as an independent investigator.
2. **Dr. Leehee Weinberger** – Ph.D. student (2011-2016) – Currently a Senior researcher at Tikcro Technologies Ltd., Rehovot, Israel
3. **Vladislav Krupalnik** – Postdoctoral fellow (2016-2018); Ph.D. student (2011-2016). Formerly, CEO at a BioX start-up, Rehovot, Israel. Currently CTO and interim CEO at Renewal Bio. Ltd., Rehovot, Israel.
4. **Dr. Yoach Rais** – Ph.D. student (2011-2016). Formerly a Senior Researcher at LogicBio Therapeutics Ltd., Rehovot, Israel. Accepted a group leader position at Volcani Institute, Rehovot, Israel and will start in September 2023.

5. **Dr. Ohad Gafni** – Ph.D. student (2012-2016) – Previously an Assistant Professor, Cardiovascular Division, Department of Medicine, University of Minnesota, USA. Formerly, CEO and CTO at Regeneriva Ltd (USA). Currently CSO at Renewal Bio. Ltd., Rehovot, Israel.
6. **Dr. Asaf Zviran** – Ph.D. student (2012-2016) – Currently CEO and cofounder of C2i Genomics INC., that has in 2021-2022 raised millions of dollars and one of the most promising startups in the field of oncology blood diagnostics. Postdoctoral fellow in Prof. Dan Landau lab (NY Genome center, Cornell University, USA). Awarded an EMBO postdoctoral fellowship.
7. **Dr. Itay Maza** – M.D. Ph.D. student (2012-2016) – Currently an Attending Physician and Research Group leader, Rambam Hospital, Haifa, Israel
8. **Dr. Shay Geula** – Ph.D. student (2012-2017; graduated **summa cum laude**) – Currently a postdoctoral fellow in Prof. Sean Morrison lab (NY Genome center, Texas, USA). Awarded HFSP and EMBO postdoctoral fellowships. Currently Head of Biology Research at Renewal Bio. Ltd., Rehovot, Israel.
9. **Dr. Ariel Pribluda** – Postdoctoral fellow (2012-2013) – Currently a postdoctoral fellow in Genentech Pharmaceuticals, California, USA
10. **Inbal Caspi** – M.Sc. student (2012-2013) – Currently a Ph.D. student at Cornell University, USA
11. **Elad Chomski** - M.Sc. student (2013-2014) – Currently a Ph.D. student in Amos Tanay lab, Weizmann Institute. Deceased in 2021.
12. **Jehonatan Cohen** – M.Sc. student (2015-2017)
13. **Shani Peles** – M.Sc. student (2016- 2018) – Currently a Product Marketing Manager at Lumenis Ltd. (Israel).
14. **Dr. Yair S. Manor** – Ph.D. student (2013-2018)
15. **Dr. Jonathan Bayerl** – Ph.D. student (2015-2021) - Currently a postdoc at Stanford University in Kyle Loh lab.
16. **Shadi Tawil** – M.Sc. student (2018 - 2019) - Currently a research scientist at Supermeat Ltd.
17. **Itay Klimnik -** M.Sc. student (2018 - 2020) Currently a research scientist at Supermeat Ltd.
18. **Dr. Nofar Mor** – Ph.D. student (2015-2019); M.Sc. student (2013-2014) - Currently a senior researcher at Sheba Medical Center, Israel.
19. **Dr. Lior Lasman –** M.D. Ph.D. student (2016-2021). Currently a medical resident in Ichilov hospital.
20. **Dr. Daoud Sheban** – Ph.D. student (2016-2022). Postdoctoral Fellow with Dr. Yifat Merbl, Weizmann Institute.
21. **Dr. Tom Shani** – Ph.D. student (2017-2022). Senior Bioinformatician at OdMachine Ltd. (Israel).
22. **Shahd Ashoukhi** – M.Sc. student (2020 - 2022). Currently, PhD student in Prof. Schraga Schwartz lab (WIS).

National and International Collaborators

1. **Prof. M. Azim Surani**, Gurdon Institute, Cambridge University, UK
2. **Prof. Didier Trono**, EPFL, Switzerland

3. **Prof. William Greenleaf**, Stanford, USA
4. **Prof. Steffano Cassola**, IEO Milan, Italy
5. **Prof. Andrew Rhim**, University of Minnesota, USA
6. **Prof. Miguel Esteban**, Guangzhou Institute of Biomedicine and Health, China
7. **Prof. Toshio Shioda**, MGH - Harvard University, USA
8. **Prof. Andrew Xiao**, Yale University, USA
9. **Prof. Roger Pedersen**, Cambridge University, UK
10. **Prof. Robert Darnell**, Rockefeller University, USA
11. **Prof. James Darnell**, Rockefeller University, USA
12. **Dr. Mitch Guttmann**, California Institute of Technology (Caltech), USA
13. **Dr. Tamer Onder,** University of Istanbul, Turkey.
14. **Prof. Alexander Meissner**, Max Planck Institute for Molecular Biology, Berlin, Germany
15. **Prof. Yechiel Elkabetz**, Max Planck Institute for Molecular Biology, Berlin, Germany
16. **Prof. Gideon Rechavi**, Tel-Hashomer Hospital - Tel Aviv University, Israel
17. **Prof. Yehudit Bergman**, The Hebrew University, Israel
18. **Prof. Ofer Mandelboim**, The Hebrew University, Israel
19. **Prof. Carmit Levi**, Tel Aviv University, Israel
20. **Prof. Dalit Ben-Yosef**, Ichilov Medical Center - Tel Aviv University, Israel
21. **Dr. Hadar Amir**, Ichilov Medical Center - Tel Aviv University, Israel
22. **Prof. Ruby Shalom-Feuerstein,** Technion Medical School, Israel
23. **Prof. Karina Yaniv**, Dept. of Biological Regulation, WIS, Israel
24. **Prof. Jakub Abramson**, Dept. of Immunology, WIS, Israel
25. **Prof. Ziv Shulman**, Dept. of Immunology, WIS, Israel
26. **Prof. Amos Tanay**, Dept. of Biological Regulation, WIS, Israel
27. **Prof. Atan Gross**, Dept. of Biological Regulation, WIS, Israel
28. **Prof. Orly Reiner**, Dept. of Molecular Genetics, WIS, Israel
29. **Prof. Ido Amit**, Dept. of Immunology, WIS, Israel
30. **Dr. Yifat Merbl**, Dept. of Immunology, WIS, Israel
31. **Prof. Noam Stern-Ginossar**, Dept. of Molecular Genetics, WIS, Israel
32. **Prof. Yitzhak Pilpel**, Dept. of Molecular Genetics, WIS, Israel
33. **Prof. Eran Hornstein**, Dept. of Molecular Genetics, WIS, Israel
34. **Prof. Daniel Garry,** Dept. of Medicine, University of Minnesota, USA
35. **Prof. Adi Kimchi**, Dept. of Molecular Genetics, WIS, Israel
36. **Prof. Schraga Schwartz**, Dept. of Molecular Genetics, WIS, Israel
37. **Dr. Yonatan Stelzer**, Dept. of Molecular Cell Biology, WIS, Israel

38. **Prof. Varda Rotter**, Dept. of Molecular Cell Biology, WIS, Israel
39. **Prof. Moshe Oren**, Dept. of Molecular Cell Biology, WIS, Israel
40. **Prof. Alon Chen**, Dept. of Neurobiology, WIS, Israel
41. **Prof. Gene Yeo,** Department of Cellular and Molecular Medicine, UCSD, USA
42. **Prof. Marella de Bruijn**, MRC Molecular Hematology Unit, University of Oxford, UK
43. **Prof. Magdalena Zernicka-Goetz**, Caltech, USA
44. **Prof. Mathias Lutolf,** ITB – Roche, Switzerland
45. **Prof. Frederik Lanner,** Karolinska Institutet, Stockholm, Sweden
46. **Prof. Sophie Petropoulos,** Karolinska Institutet, Stockholm, Sweden
47. **Prof. Jonathan Loh,** A-STAR, Singapore

H. Patents

1. " Reprogramming of Somatic Cells". Filed in 2008 by *Whitehead Institute, Cambridge, USA. (9714414 – Granted in USA and EU).* **This patent was recently re-licensed in 2020 to Fate Therapeutics INC. for 2.5 Million USD.**

2. "ISOLATED NAIVE PLURIPOTENT STEM CELLS AND METHODS OF GENERATING SAME" Filed in 2013 by Weizmann Institute of Science – YEDA. (10920192 – Granted in USA and EU) **This patent was licensed and commercialized by Stem Cell Technologies Inc. (Vancouver, Canada) as RSeT™, the first defined human naïve pluripotency growth media commercialized**

   https://www.stemcell.com/rset-human-pluripotent-stem-cells.html ;

   https://www.stemcell.com/rset-medium-2-component.html

3. "MEDIA FOR CULTURING NAIVE PLURIPOTENT STEM CELLS". Filed in 2015 by Weizmann Institute of Science – YEDA. (Provisional – US 15/500,163).

4. "CULTURE MEDIA FOR PLURIPOTENT STEM CELLS". Filed in 2019 by Weizmann Institute of Science – YEDA. (Provisional)

5. "METHODS AND DEVICES FOR EX-UTERO MOUSE EMBRYONIC DEVELOPMENT". Filed in 2021 by Weizmann Institute of Science – YEDA. (Provisional)

6. "METHODS OF GENERATING A SYNTHETIC EMBRYO". Filed in 2022 by Weizmann Institute of Science – YEDA. (Provisional)

I. List of publications: Jacob H. Hanna

*(First or Last author publications are highlighted in **bold**)*

1. **Oldak B, Wildschutz E, Bondarenko V, Aguilera-Castrejon A, Zhao C, Tarazi S, Comar M, Ashouokhi S, Lokshtanov D, Roncato F, Viukov S, Ariel E, Rose M, Livnat N, Shani T, Joubran C, Cohen R, Addadi Y, Chemla M, Kedmi M, Keren-Shaul H, Pasque V, Petropoulos S, Lanner F, Novershtern N & Hanna JH. "Complete human day 14 post-Implantation embryo models from naïve ES cells". Nature *2023; (advance online publication)* [URL]** [10 citations]
   - News features **about the Preprint *on bioRxiv from June 14th, 2023 -*** [URL]: The New York Times [URL], Science magazine news [URL], Nature news [URL], The Guardian [URL], El Pais [URL], Haaretz [URL], MIT Technology Review [URL], Science News [URL]
   - Policy Forum / News and Views: Cell Stem Cell [URL]
   - News coverage **upon peer reviewed version publication in Nature -** [URL]: BBC news [URL], The Guardian [URL], Haaretz [URL], CBS news [URL], Reuters news [URL], BBC Radio [URL], BBC TV [URL]

2. Hamashima K, Wong KW, Sam TW, Teo JHJ, Taneja R, Le M, Li QJ, Hanna JH, Li H Loh YH. "Single-nucleus multiomic mapping of m6A methylomes and transcriptomes in native populations of cells with sn-m6A-CT". **Molecular Cell** 2023; 83(17):3205-3216. [URL]

3. Kshirsagar A, Gorelik A, Olender T, Sapir T, Tsuboi D, Goldian I, Malitsky S, Itkin M, Argoetti A, Mandel-Gutfreund Y, Cohen SR, Hanna JH, Ulitsky I, Kaibuchi K, & Reiner O. "LIS1 RNA-binding orchestrates the mechanosensitive properties of embryonic stem cells in AGO2-dependent and independent ways". **Nature Communications** 2023; 14:3293. [URL]

4. Zhang Y, Zhang W, Zhao J, Ito T, Jin J, Aparicio A, Zhou J, Guichard VA, Fang Y, Que J, Urban JF, Hanna JH, Ghosh S, Wy X, Ding L, Basu U and Huang Y. "m6A RNA modification regulates innate lymphoid cell responses in a lineage-specific manner". **Nature Immunology** 2023; 24(8):1256-1264. [URL]

5. Dekel C, Morey R, Hanna JH, Laurent LC, Ben-Yosef D, Amir H. " Stabilization of hESCs in two distinct substates along the continuum of pluripotency." **iScience** 2022 Nov 2;25(12):105469. doi: 10.1016/j.isci.2022.105469. [URL]

6. **Tarazi S, Aguilera-Castrejon A, Joubran C, Ghanem N, Ashouokhi S, Roncato F, Wildschutz E, Haddad M, Oldak B, Gomez-Cesar E, Livnat N, Viukov S, Lokshtanov D, Naveh-Tassa S, Rose M, Hanna S, Raanan C, Brenner O, Kedmi M, Keren-Shaul H, Lapidot T, Maza I, Novershtern N & Hanna JH. "Post-gastrulation synthetic embryos generated ex utero from mouse naive ESCs". *Cell* (2022) 185(15):3290-3306. [URL]** *[Selected for Issue Cover]* [85 citations]

- News feature: The Guardian [URL], Washington Post [URL], Science magazine news [URL], Haaretz [URL – English version], Nature news [URL], Le Monde [URL]
- Editorial highlight in Nature Biotechnology [URL] and Nature Methods [URL]
- News and Views: Nature [URL], Cell Stem Cell [URL]

7. Amadei G, Handford CE, Qiu C, De Jonghe J, Greenfeld H, Tran M, Martin BK, Chen DY, Aguilera-Castrejon A, Hanna JH, Elowitz MB, Hollfelder F, Shendure J, Glover DM, Zernicka-Goetz M. "Embryo model completes gastrulation to neurulation and organogenesis". ***Nature*** (2022) 610:143-153**.** [URL]

8. **Viukov S, Shani T, Bayerl J, Tarazi S, Stelzer Y, Hanna JH* and Novershtern N*. "Human primed and naïve PSCs are both competent in differentiating into trophoblast stem cells". *Stem Cell Reports (2022)* 17(11) [URL] *[Selected for Issue Cover]* (*Lead and co-corresponding authors)** [14 citations]

9. **Sheban D, Maor R, Shani T, Aguilera-Castrejon A, Mor N, Hebert J, Viukov S, Shmueli M, Krupalnik V, Chugayeva V, Rodriguez de Larosa A, Zerbib M, Ulman A, Massarwa S, Kupervase M, Levin Y, Shema E, David Y, Novershtern N, Hanna JH* & Merbl Y*. "SUMOylation of linker histone H1 drives chromatin condensation and restriction of embryonic cell fate". *Molecular Cell* (2022) 82(1):106-122. (*Co-senior corresponding authors)** [URL] [15 citations]

10. Grenov A, Hezroni H, Lasman L, Hanna JH and Shulman Z. "YTHDF2 suppresses the plasmablast program and promotes germinal center formation". ***Cell Reports*** *(2022)* 39(5):1-21 [URL]

11. Li J, Xu B, He M, Zong X, Cunningham T, Sha C, Fan Y, Cross R, Hanna JH, Feng Y. Control of Foxp3 induction and maintenance by sequential histone acetylation and DNA demethylation. ***Cell Reports*** (2021) 37(11):110124. [URL]

12. Grenov AC, Moss L, Edelheit S, Cordiner R, Schmiedel D, Biram A, Hanna JH, Jensen TH, Schwartz S, Shulman Z. "The germinal center reaction depends on RNA methylation and divergent functions of specific methyl readers". ***Journal of Experimental Medicine* (2021)** 218(10):e20210360. [URL]

13. **Aguilera-Castrejon A, Hanna JH. "Ex Utero Culture of Mouse Embryos from Pregastrulation to Advanced Organogenesis". *J.Vis. Exp.* (2021) 176. [URL]**

14. Steinberg DJ, Repudi S, Saleem A, Kustanovich I, Viukov S, Abudiab B, Banne E, Mahajnah M, Hanna JH, Stern S, Carlen PL, Aqeilan RI. "Modeling genetic epileptic encephalopathies using brain organoids". ***EMBO Mol Med*** (2021) 13(8):e13610. [URL]

15. Nair L, Zhang W, Laffleur B, Jha MK, Lim J, Lee H, Wu L, Alvarez NS, Liu ZP, Munteanu EL, Swayne T, Hanna JH, Ding L, Rothschild G, Basu U. "Mechanism of noncoding

RNA-associated N6-methyladenosine recognition by an RNA processing complex during IgH DNA recombination". ***Molecular Cell*** (2021) 81(19):3949-3964. [URL]

16. Repudi S, Steinberg DJ, Elazar N, Breton VL, Aquilino MS, Saleem A, Abu-Swai S, Vainshtein A, Eshed-Eisenbach Y, Vijayaragavan B, Behar O, Hanna JH, Peles E, Carlen PL, Aqeilan RI. "Neuronal deletion of Wwox, associated with WOREE syndrome, causes epilepsy and myelin defects". ***Brain*** (2021) 144(10):3061-3077. [URL]

17. **Aguilera-Castrejon A, Oldak B, Shani T, Ghanem N, Itzkovich C, Slomovich S, Tarazi S, Bayerl J, Chugaeva V, Ayyash M, Ashouokhi S, Sheban D, Livnat N, Lasman L, Viukov S, Zerbib M, Addadi Y, Rais Y, Cheng S, Stelzer Y, Keren-Shaul H, Shlomo R, Massarwa R, Novershtern N, Maza I & Hanna JH. "Ex utero mouse embryogenesis from pre-gastrulation to late organogenesis". *Nature* (2021) 593(7857):119-124. [URL]** [142 citations]
    - News feature: New York Times (by Gina Kolata) [URL], Science magazine news [URL], Haaretz [URL – English version] [URL – Hebrew version], MIT Technology Review [URL].
    - Paper listed among top scientific breakthroughs of the year 2021 by Science journal [URL].
    - Lab featured in Nature Outlook: The next frontier for human embryo research (2021) [URL].
    - Work featured in Nature news feature: What's next for lab-grown human embryos?" (2021) [URL]

18. **Bayerl J, Ayyash M, Shani T, Manor Y, Gafni O, Massarwa R, Kalma Y, Aguilera-Castrejon A, Zerbib M, Amir H, Sheban D, Geula S, Mor N, Weinberger L, Naveh-Tassa S, Krupalnik V, Oldak B, Livnat N, Tarzi S. Tawil S, Wildschutz E, Ashouokhi S, Lasman L, Rotter V, Hanna S, Ben-Yosef D, Novershtern N, Viukov S & Hanna JH. "Principles of signaling pathway modulation for enhancing human naïve pluripotency induction". *Cell Stem Cell* (2021) 28(9):1549-1565.** [URL] [64 citations]

19. Marmor-Kollet H, Siany A, Kedersha N, Knafo N, Rivkin N, Danino YM, Moens TG, Olender T, Sheban D, Cohen N, Dadosh T, Addadi Y, Ravid R, Eitan C, Toth Cohen B, Hofmann S, Riggs CL, Advani VM, Higginbottom A, Cooper-Knock J, Hanna JH, Merbl Y, Van Den Bosch L, Anderson P, Ivanov P, Geiger T, Hornstein E. "Spatiotemporal Proteomic Analysis of Stress Granule Disassembly Using APEX Reveals Regulation by SUMOylation and Links to ALS Pathogenesis". ***Molecular Cell*** (2020) 80(5):876-891. [URL]

20. **Lasman L, Krupalnik V, Viukov S, Mor N, Aguilera-Castrejon A, Schneir D, Bayerl J, Mizrahi O, Peles S, Tawil S, Sathe S, Nachshon A, Shani T, Zerbib M, Kilimnik I, Aigner S, Shankar A, Mueller JR, Schwartz S, Stern-Ginossar N, Yeo GW, Geula**

S, Novershtern N & Hanna JH. "Context-dependent functional compensation between Ythdf m ^{6} A reader proteins". *Genes and Development* (2020) 34(19-20):1373-1391. [URL] [162 citations]

21. Mitsunaga S, Shioda K, Hanna JH, Isselbacher KJ, Shioda T. "Production and Analysis of Human Primordial Germ Cell-Like Cells". ***Methods in Molecular Biology*** (2021) 2195:125-145. [URL]

22. **Zhang M, Lai Y, Krupalnik V, Guo P, Guo X, Zhou J, Xu Y, Yu Z, Liu L, Jiang A, Li W, Abdul MM, Ma G, Li N, Fu X, Lv Y, Jiang M, Tariq M, Kanwal S, Liu H, Xu X, Zhang H, Huang Y, Wang L, Chen S, Babarinde IA, Luo Z, Wang D, Zhou T, Ward C, He M, Ibañez DP, Li Y, Zhou J, Yuan J, Feng Y, Arumugam K, Di Vicino U, Bao X, Wu G, Schambach A, Wang H, Sun H, Gao F, Qin B, Hutchins AP, Doble BW, Hartmann C, Cosma MP, Qin Y, Xu GL, Chen R, Volpe G, Chen L, Hanna JH* & Esteban MA*. "β-Catenin safeguards the ground state of mousepluripotency by strengthening the robustness of the transcriptional apparatus". *Science Advances* (2020) 6(29):eaba1593. *(*Equal co-corresponding authors).* [URL]**

23. Ha TW, Jeong JH, Shin H, Kim HK, Im JS, Song BH, Hanna JH, Oh JS, Woo DH, Han J, Lee MR. "Characterization of Endoplasmic Reticulum (ER) in Human Pluripotent Stem Cells Revealed Increased Susceptibility to Cell Death upon ER Stress". ***Cells*** (2020) 9(5):1078. [URL]

24. Das S, Koyano-Nakagawa N, Gafni O, Maeng G, Singh BN, Rasmussen T, Pan X, Choi KD, Mickelson D, Gong W, Pota P, Weaver CV, Kren S, Hanna JH, Yannopoulos D, Garry MG, Garry DJ. "Generation of human endothelium in pig embryos deficient in ETV2". ***Nature Biotechnology*** (2020) 38(3):297-302. [URL]

25. Garcia-Campos MA, Edelheit S, Toth U, Safra M, Shachar R, Viukov S, Winkler R, Nir R, Lasman L, Brandis A, Hanna JH, Rossmanith W, Schwartz S. "Deciphering the "m ^{6} A Code" via Antibody-Independent Quantitative Profiling". ***Cell*** (2019) 178(3):731-747. [URL]

26. **Lee H, Bao S, Qian Y, Geula S, Leslie J, Zhang C, Hanna JH* & Ding L*. "Stage-specific requirement for Mettl3-dependent m^{6}A mRNA methylation during haematopoietic stem cell differentiation". *Nature Cell Biology* (2019) 21(6):700-709. *(*Equal co-corresponding authors)* [URL]** [166 citations]

27. Mitsunaga S, Shioda K, Isselbacher KJ, Hanna JH, Shioda T. “Generation of Human Primordial Germ Cell-like Cells at the Surface of Embryoid Bodies from Primed-pluripotency Induced Pluripotent Stem Cells”. ***J Vis Exp*** (2019) 11:143. [URL]

28. Dorn LE, Lasman L, Chen J, Xu X, Hund TJ, Medvedovic M, Hanna JH, van Berlo JH, Accornero F. “The N 6-Methyladenosine mRNA Methylase METTL3 Controls Cardiac Homeostasis and Hypertrophy”. ***Circulation*** (2019) 139(4):535-545. [URL]

29. Winkler R, Gillis E, Lasman L, Safra M, Geula S, Soyris C, Nachshon A, Tai-Schmiedel J, Friedman N, Le-Trilling VTK, Trilling M, Mandelboim M, Hanna JH, Schwartz S, Stern-Ginossar N. “m6A modification controls the innate immune response to infection by targeting type I interferons”. ***Nature Immunology*** (2019) 20:173-182. [URL]

30. **Zviran A, Mor N, Rais Y, Gingold H, Peles S, Chomsky E, Viukov S, Buenrostro JD, Scognamiglio R, Weinberger L, Manor YS, Krupalnik V, Zerbib M, Hezroni H, Jaitin DA, Larastiaso D, Gilad S, Benjamin S, Gafni O, Mousa A, Ayyash M, Sheban D, Bayerl J, Aguilera-Castrejon A, Massarwa R, Maza I, Hanna S, Stelzer Y, Ulitsky I, Greenleaf WJ, Tanay A, Trumpp A, Amit I, Pilpel Y, Novershtern N & Hanna JH. “Deterministic Somatic Cell Reprogramming Involves Continuous Transcriptional Changes Governed by Myc and Epigenetic-Driven Module”. *Cell Stem Cell* (2019) 24(2):328-341. [URL]** [51 citations]

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32. **Mor N, Rais Y, Sheban D, Peles S, Aguilera A, Zviran A, Elinger D, Viukov S, Geula S, Krupalnik V, Zerbib M, Chomsky E, Lasman L, Shani T, Bayerl J, Gafni O, Hanna S, Buenrostro JD., Hagai T, Masika H, Gintautas V, Bergman Y, Greenleaf W, Esteban MA, Elling U, Levin Y, Massarwa R, Merbl Y, Novershtern N and Hanna JH. "Neutralizing Gatad2a-Chd4-Mbd3/NuRD Complex Facilitates Deterministic Induction of Naïve Pluripotency”. *Cell Stem Cell* (2018) 23(3):412-425. [URL]** [70 citations]

33. Engel M, Eggert C, Kaplick P, Eder M, Tietze L, Namendorf C, Roh S, Arloth J, Weber P, Haffner M, Geula S, Hanna JH, Leshkovitz D, Uhr M, Wotjak C, Schmidt M, Deussing J, Binder E and Chen A. " The role of m6A/mRNA methylation in stress response regulation.” ***Neuron*** (2018) 99(2):389-403. [URL]
34. Lipsitz Y, Woodford C, Yin T, Hanna JH, and Zandstra P. "Modulating cell state to enhance suspension expansion of human pluripotent stem cells.” ***PNAS*** (2018) 115(25):6369-6374. [URL]

35. Gamliel M, Goldman-Wohl D, Isaacson I, Gur C, Stein N, Yamin R, Brger M, Grunewald M, Keshet E, Rais Y, Bornstein C, David E, Jelinski A, Eisenberg I, Greenfield C, Ben-David A, Imbar T, Gilad R, Haimov-Kochman R, Mankuta D, Elami-Suzin M, Amit I,

Hanna JH, Yagel S and Mandelboim O. " Trained Memory of Human Uterine NK Cells Enhances Their Function in Subsequent Pregnancies" ***Immunity*** (2018) 48(5):951-962. [URL]

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