



## Anne Brunet

Michele and Timothy Barakett Endowed Professor

Genetics

 NIH Biosketch available Online

 Curriculum Vitae available Online

### Bio

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#### BIO

Dr. Brunet is interested in the molecular mechanisms of aging and longevity, with a particular emphasis on the nervous system. Her lab is interested in identifying pathways involved in delaying aging in response to external stimuli such as availability of nutrients and mates. She also seeks to understand the mechanisms that influence the rejuvenation of old stem cells. Finally, her lab has pioneered the naturally short-lived African killifish as a new model to explore the regulation of aging and age-related diseases.

#### ACADEMIC APPOINTMENTS

- Professor, Genetics
- Member, Bio-X
- Member, Cardiovascular Institute
- Member, Wu Tsai Human Performance Alliance
- Member, Stanford Cancer Institute
- Member, Wu Tsai Neurosciences Institute

#### HONORS AND AWARDS

- Transformative Research Award, NIH Directors' Fund (2018)
- Bennett J. Cohen Award for Research in Aging, University of Michigan (2014)
- Pioneer Award, NIH Director's Fund (2012)
- Vincent Cristofalo 'Rising Star in Aging Research' Award, American Federation for Aging Research (2012)
- Mentoring Award, Stanford University Post-doc Association (2010)
- New Investigator Award, NARSAD (2009)
- Senior Scholar Award, Ellison Medical Foundation (2009)
- Junior Investigator Award, California Institute for Regenerative Medicine (CIRM) (2008)
- Glenn Award, The Glenn Foundation for Medical Research (2007)
- Alfred P. Sloan Fellow, Sloan Foundation (2006)
- Innovation in Aging Research Award, Pfizer/American Association for Aging Research (2005)
- Klingenstein Fellow, The Esther A. & Joseph Klingenstein Fund (2005)

#### PROFESSIONAL EDUCATION

- B.Sc., Ecole Normale Supérieure, Paris, Molecular Biology (1992)

- Ph.D., University of Nice, France , Cell Biology (1997)
- Postdoctoral fellow, Harvard Medical School , Neuroscience (2003)

## LINKS

- Brunet Lab Home Page: <https://web.stanford.edu/group/brunet/>
- Paul F. Glenn Laboratories for the Biology of Aging: <http://glennlaboratories.stanford.edu/>

## Research & Scholarship

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### CURRENT RESEARCH AND SCHOLARLY INTERESTS

The overarching goal of our lab is to understand the genetic mechanisms of aging and longevity. Aging is a highly plastic process regulated by a combination of genetic and environmental factors.

We have a long-standing interest in the genetic pathway that connects insulin to FOXO transcription factors, a central pathway to regulate lifespan from worms to humans. We use a combination of genetic, molecular, and cellular approaches to analyze the regulation and importance of FOXO transcription factors, and more generally 'longevity genes' in mammals. We are particularly interested in the role of longevity genes in the maintenance of the pool of adult neural stem cells and intact cognitive function during aging. We also use ultra-high throughput sequencing technologies to study epigenetic changes and transcriptional networks during aging.

In parallel, our goal is to identify novel 'longevity genes' using short-lived animal models. Our lab uses unbiased approaches in the nematode *C. elegans* to identify novel pathways that control organismal longevity, particularly in response to dietary restriction. We are particularly interested in the role of chromatin modifiers in the regulation of lifespan and metabolism.

Finally, we are developing the extremely short-lived African killifish *N. furzeri* as a new vertebrate model for aging studies. We are taking advantage of this fish to explore the genetic architecture of longevity in vertebrates.

## Teaching

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### COURSES

#### 2022-23

- Current Issues in Aging: GENE 221 (Spr)

#### 2021-22

- Current Issues in Aging: GENE 221 (Win)

### STANFORD ADVISEES

#### Doctoral Dissertation Reader (AC)

Meena Chakraborty, Emma Costa, Connor Duffy, Rachel Ee, Amelia Farinas, Jolie Huang, Yoo Jin Jung, Cindy Lin, Kayla Vodehnal

#### Postdoctoral Faculty Sponsor

Felix Boos, Jingxun Chen, Daniel Heinzer Avar, Blake Laham, Jason Miklas, Ravi Nath, Giulia Notarangelo, Nimrod Rappoport, Daniel Richard

#### Doctoral Dissertation Advisor (AC)

Jeeyoon Na, Rahul Nagvekar, Angela Pogson, Olivia Zhou

#### Doctoral Dissertation Co-Advisor (AC)

Brandon Ameglio, Eric Sun

## GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Cancer Biology (Phd Program)
- Genetics (Phd Program)
- Neurosciences (Phd Program)

## Publications

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### PUBLICATIONS

- **CRISPR-Cas9 screens reveal regulators of ageing in neural stem cells.** *Nature*  
Ruetz, T. J., Pogson, A. N., Kashiwagi, C. M., Gagnon, S. D., Morton, B., Sun, E. D., Na, J., Yeo, R. W., Leeman, D. S., Morgens, D. W., Tsui, C. K., Li, A., Bassik, et al  
2024
- **Tissue-specific landscape of protein aggregation and quality control in an aging vertebrate.** *Developmental cell*  
Chen, Y. R., Harel, I., Singh, P. P., Ziv, I., Moses, E., Goshtchevsky, U., Machado, B. E., Brunet, A., Jarosz, D. F.  
2024
- **Identification of protein aggregates in the aging vertebrate brain with prion-like and phase-separation properties.** *Cell reports*  
Harel, I., Chen, Y. R., Ziv, I., Singh, P. P., Heinzer, D., Navarro Negredo, P., Goshtchevsky, U., Wang, W., Astore, G., Moses, E., McKay, A., Machado, B. E., Hebestreit, et al  
2024: 112787
- **Evolution of diapause in the African turquoise killifish by remodeling the ancient gene regulatory landscape.** *Cell*  
Singh, P. P., Reeves, G. A., Contrepois, K., Papsdorf, K., Miklas, J. W., Ellenberger, M., Hu, C. K., Snyder, M. P., Brunet, A.  
2024
- **Restoration of neuronal progenitors by partial reprogramming in the aged neurogenic niche.** *Nature aging*  
Xu, L., Ramirez-Matias, J., Hauptschein, M., Sun, E. D., Lunger, J. C., Buckley, M. T., Brunet, A.  
2024
- **Chromatin accessibility dynamics of neurogenic niche cells reveal defects in neural stem cell adhesion and migration during aging.** *Nature aging*  
Yeo, R. W., Zhou, O. Y., Zhong, B. L., Sun, E. D., Navarro Negredo, P., Nair, S., Sharmin, M., Ruetz, T. J., Wilson, M., Kundaje, A., Dunn, A. R., Brunet, A.  
2023
- **Rapid and precise genome engineering in a naturally short-lived vertebrate.** *eLife*  
Bedbrook, C. N., Nath, R. D., Nagvekar, R., Deisseroth, K., Brunet, A.  
2023; 12
- **Lipid droplets and peroxisomes are co-regulated to drive lifespan extension in response to mono-unsaturated fatty acids.** *Nature cell biology*  
Papsdorf, K., Miklas, J. W., Hosseini, A., Cabruja, M., Morrow, C. S., Savini, M., Yu, Y., Silva-Garcia, C. G., Haseley, N. R., Murphy, L. M., Yao, P., de Launoit, E., Dixon, et al  
2023
- **The African Turquoise Killifish: A Scalable Vertebrate Model for Aging and Other Complex Phenotypes.** *Cold Spring Harbor protocols*  
Boos, F., Chen, J., Brunet, A.  
2023
- **Exercise reprograms the inflammatory landscape of multiple stem cell compartments during mammalian aging.** *Cell stem cell*  
Liu, L., Kim, S., Buckley, M. T., Reyes, J. M., Kang, J., Tian, L., Wang, M., Lieu, A., Mao, M., Rodriguez-Mateo, C., Ishak, H. D., Jeong, M., Wu, et al  
2023
- **Cell-type-specific aging clocks to quantify aging and rejuvenation in neurogenic regions of the brain.** *Nature aging*  
Buckley, M. T., Sun, E. D., George, B. M., Liu, L., Schaum, N., Xu, L., Reyes, J. M., Goodell, M. A., Weissman, I. L., Wyss-Coray, T., Rando, T. A., Brunet, A.  
2023; 3 (1): 121-137
- **An automated feeding system for the African killifish reveals effects of dietary restriction on lifespan and allows scalable assessment of associative learning.** *eLife*

- McKay, A., Costa, E. K., Chen, J., Hu, C., Chen, X., Bedbrook, C. N., Khondker, R. C., Thielvoldt, M., Priya Singh, P., Wyss-Coray, T., Brunet, A.  
2022; 11
- **Males induce premature demise of the opposite sex by multifaceted strategies.** *Nature aging*  
Booth, L. N., Shi, C., Tantilert, C., Yeo, R. W., Miklas, J. W., Hebestreit, K., Hollenhorst, C. N., Maures, T. J., Buckley, M. T., Murphy, C. T., Brunet, A.  
2022; 2 (9): 809-823
  - **Ageing and rejuvenation of tissue stem cells and their niches.** *Nature reviews. Molecular cell biology*  
Brunet, A., Goodell, M. A., Rando, T. A.  
2022
  - **Vertebrate diapause preserves organisms long term through Polycomb complex members.** *Science (New York, N.Y.)*  
Hu, C., Wang, W., Brind'Amour, J., Singh, P. P., Reeves, G. A., Lorincz, M. C., Alvarado, A. S., Brunet, A.  
2020; 367 (6480): 870-74
  - **Heterogeneity in old fibroblasts is linked to variability in reprogramming and wound healing.** *Nature*  
Mahmoudi, S. n., Mancini, E. n., Xu, L. n., Moore, A. n., Jahanbani, F. n., Hebestreit, K. n., Srinivasan, R. n., Li, X. n., Devarajan, K. n., Pr elot, L. n., Ang, C. E., Shibuya, Y. n., Benayoun, et al  
2019; 574 (7779): 553-58
  - **Turning back time with emerging rejuvenation strategies.** *Nature cell biology*  
Mahmoudi, S., Xu, L., Brunet, A.  
2019; 21 (1): 32-43
  - **Single-cell analysis reveals T cell infiltration in old neurogenic niches.** *Nature*  
Dulken, B. W., Buckley, M. T., Navarro Negredo, P. n., Saligrama, N. n., Cayrol, R. n., Leeman, D. S., George, B. M., Boutet, S. C., Hebestreit, K. n., Pluvinage, J. V., Wyss-Coray, T. n., Weissman, I. L., Vogel, et al  
2019
  - **Plasma proteomics in the UK Biobank reveals youthful brains and immune systems promote healthspan and longevity.** *bioRxiv : the preprint server for biology*  
Oh, H. S., Le Guen, Y., Rappoport, N., Urey, D. Y., Rutledge, J., Brunet, A., Greicius, M. D., Wyss-Coray, T.  
2024
  - **Hematologic DNMT3A reduction and high-fat diet synergize to promote weight gain and tissue inflammation.** *iScience*  
Reyes, J. M., Tovy, A., Zhang, L., Bortoletto, A. S., Rosas, C., Chen, C. W., Waldvogel, S. M., Guzman, A. G., Aguilar, R., Gupta, S., Liu, L., Buckley, M. T., Patel, et al  
2024; 27 (3): 109122
  - **TISSUE: uncertainty-calibrated prediction of single-cell spatial transcriptomics improves downstream analyses.** *Nature methods*  
Sun, E. D., Ma, R., Navarro Negredo, P., Brunet, A., Zou, J.  
2024
  - **The CRT1 transcriptional domain is required for COMPASS complex-mediated longevity in C. elegans.** *Nature aging*  
Silva-Garcia, C. G., Lascarez-Lagunas, L. I., Papsdorf, K., Heintz, C., Prabhakar, A., Morrow, C. S., Pajuelo Torres, L., Sharma, A., Liu, J., Colaiacovo, M. P., Brunet, A., Mair, W. B.  
2023
  - **TISSUE: uncertainty-calibrated prediction of single-cell spatial transcriptomics improves downstream analyses.** *bioRxiv : the preprint server for biology*  
Sun, E. D., Ma, R., Navarro Negredo, P., Brunet, A., Zou, J.  
2023
  - **Chromatin Accessibility Profiling and Data Analysis using ATAC-seq in Nothobranchius furzeri.** *Cold Spring Harbor protocols*  
Reeves, G. A., Singh, P. P., Brunet, A.  
2023
  - **Seeing is believing: old clones die young.** *Nature aging*  
Zhou, O. Y., Brunet, A.  
2023; 3 (4): 371-373
  - **Husbandry of the African Turquoise Killifish Nothobranchius furzeri.** *Cold Spring Harbor protocols*

- Nath, R. D., Bedbrook, C. N., Nagvekar, R., Brunet, A.  
2023
- **Life Span Assessment in the African Turquoise Killifish *Nothobranchius furzeri*.** *Cold Spring Harbor protocols*  
Bedbrook, C. N., Nath, R. D., Barajas, R., Brunet, A.  
2023
  - **Breeding and Reproduction of the African Turquoise Killifish *Nothobranchius furzeri*.** *Cold Spring Harbor protocols*  
Chen, J., Khondker, R. C., Brunet, A.  
2023
  - **Exercise reprograms the inflammatory landscape of multiple stem cell compartments during mammalian aging** *Cell Stem Cell*  
Liu, L., Kim, S., Buckley, M., Reyes, J., Kang, J., Tian, L., Wang, M., Lieu, A., Mao, M., Mateo, C., Ishak, H., Jeong, M., Wu, et al  
2023; 30 (1-17)
  - **Cell-type-specific aging clocks to quantify aging and rejuvenation in neurogenic regions of the brain** *NATURE AGING*  
Buckley, M. T., Sun, E. D., George, B. M., Liu, L., Schaum, N., Xu, L., Reyes, J. M., Goodell, M. A., Weissman, I. L., Wyss-Coray, T., Rando, T. A., Brunet, A.  
2023; 3 (1): 121-+
  - **Long life depends on open communication.** *Nature cell biology*  
Miklas, J. W., Brunet, A.  
2022
  - **Unwanted help from T cells in the aging central nervous system.** *Nature aging*  
Negredo, P. N., Brunet, A.  
1800; 1 (4): 330-331
  - **Aging and Rejuvenation of Neural Stem Cells and Their Niches.** *Cell stem cell*  
Navarro Negredo, P., Yeo, R. W., Brunet, A.  
2020
  - **Old and new models for the study of human ageing.** *Nature reviews. Molecular cell biology*  
Brunet, A.  
2020
  - **Support cells in the brain promote longevity.** *Science (New York, N.Y.)*  
Miklas, J. W., Brunet, A. n.  
2020; 367 (6476): 365-66
  - **Differentiation Drives Widespread Rewiring of the Neural Stem Cell Chaperone Network.** *Molecular cell*  
Vonk, W. I., Rainbolt, T. K., Dolan, P. T., Webb, A. E., Brunet, A. n., Frydman, J. n.  
2020
  - **Personal aging markers and ageotypes revealed by deep longitudinal profiling.** *Nature medicine*  
Ahadi, S., Zhou, W., Schussler-Fiorenza Rose, S. M., Sailani, M. R., Contrepois, K., Avina, M., Ashland, M., Brunet, A., Snyder, M.  
2020; 26 (1): 83-90
  - **Cell-Type-Specific Metabolic Profiling Achieved by Combining Desorption Electrospray Ionization Mass Spectrometry Imaging and Immunofluorescence Staining.** *Analytical chemistry*  
Yan, X. n., Zhao, X. n., Zhou, Z. n., McKay, A. n., Brunet, A. n., Zare, R. N.  
2020
  - **Changes in regeneration-responsive enhancers shape regenerative capacities in vertebrates.** *Science (New York, N.Y.)*  
Wang, W. n., Hu, C. K., Zeng, A. n., Alegre, D. n., Hu, D. n., Gotting, K. n., Ortega Granillo, A. n., Wang, Y. n., Robb, S. n., Schnittker, R. n., Zhang, S. n., Alegre, D. n., Li, et al  
2020; 369 (6508)
  - **Self-sperm induce resistance to the detrimental effects of sexual encounters with males in hermaphroditic nematodes.** *eLife*  
Booth, L. N., Maures, T. J., Yeo, R. W., Tantilert, C., Brunet, A.  
2019; 8

- **Remodeling of epigenome and transcriptome landscapes with aging in mice reveals widespread induction of inflammatory responses** *GENOME RESEARCH*  
Benayoun, B. A., Pollina, E. A., Singh, P., Mahmoudi, S., Harel, I., Casey, K. M., Dulken, B. W., Kundaje, A., Brunet, A.  
2019; 29 (4): 697–709
- **The Genetics of Aging: A Vertebrate Perspective.** *Cell*  
Singh, P. P., Demmitt, B. A., Nath, R. D., Brunet, A.  
2019; 177 (1): 200–220
- **Cross-Platform Comparison of Untargeted and Targeted Lipidomics Approaches on Aging Mouse Plasma.** *Scientific reports*  
Contrepois, K., Mahmoudi, S., Ubhi, B. K., Papsdorf, K., Hornburg, D., Brunet, A., Snyder, M.  
2018; 8 (1): 17747
- **Linking Lipid Metabolism to Chromatin Regulation in Aging.** *Trends in cell biology*  
Papsdorf, K., Brunet, A.  
2018
- **Loss of CaMKI function disrupts salt aversive learning in C. elegans.** *The Journal of neuroscience : the official journal of the Society for Neuroscience*  
Lim, J. P., Fehlauer, H., Das, A., Saro, G., Glauser, D. A., Brunet, A., Goodman, M. B.  
2018
- **The African turquoise killifish: A research organism to study vertebrate aging and diapause** *AGING CELL*  
Hu, C., Brunet, A.  
2018; 17 (3): e12757
- **Lysosome activation clears aggregates and enhances quiescent neural stem cell activation during aging** *SCIENCE*  
Leeman, D. S., Hebestreit, K., Ruetz, T., Webb, A. E., McKay, A., Pollina, E. A., Dulken, B. W., Zhao, X., Yeo, R. W., Ho, T. T., Mahmoudi, S., Devarajan, K., Passegue, et al  
2018; 359 (6381): 1277–82
- **The genome of Austrofundulus limnaeus offers insights into extreme vertebrate stress tolerance and embryonic development** *BMC GENOMICS*  
Wagner, J. T., Singh, P., Romney, A. L., Riggs, C. L., Minx, P., Woll, S. C., Roush, J., Warren, W. C., Brunet, A., Podrabsky, J. E.  
2018; 19: 155
- **Same path, different beginnings** *NATURE NEUROSCIENCE*  
Dulken, B. W., Brunet, A.  
2018; 21 (2): 159–60
- **Lysosome activation clears aggregates and enhances quiescent neural stem cell activation during aging** *Science*  
Leeman, D. S., Hebestreit, K., Ruetz, T., Webb, A. E., McKay, A., Pollina, E. A., Dulken, B. W., Zhao, X., Yeo, R. W., Ho, T. T., Mahmoudi, S., Devarajan, K., Passegué, et al  
2018: 1277-1283
- **Chromatin accessibility dynamics reveal novel functional enhancers in C. elegans** *GENOME RESEARCH*  
Daugherty, A. C., Yeo, R. W., Buenrostro, J. D., Greenleaf, W. J., Kundaje, A., Brunet, A.  
2017; 27 (12): 2096–2107
- **Progranulin, lysosomal regulation and neurodegenerative disease** *NATURE REVIEWS NEUROSCIENCE*  
Kao, A. W., McKay, A., Singh, P. P., Brunet, A., Huang, E. J.  
2017; 18 (6): 325-333
- **AMPKα1-LDH pathway regulates muscle stem cell self-renewal by controlling metabolic homeostasis.** *EMBO journal*  
Theret, M., Gsaier, L., Schaffer, B., Juban, G., Ben Larbi, S., Weiss-Gayet, M., Bultot, L., Caterina, C., Foretz, M., Desplanches, D., Sanz, P., Zang, Z., Yang, et al  
2017
- **Mono-unsaturated fatty acids link H3K4me3 modifiers to C. elegans lifespan** *NATURE*  
Han, S., Schroeder, E. A., Silva-Garica, C. G., Hebestreit, K., Mair, W. B., Brunet, A.  
2017; 544 (7649): 185-?
- **Understanding and modeling aging**

- Brunet, A.  
FEDERATION AMER SOC EXP BIOL.2017
- **Interaction between epigenetic and metabolism in aging stem cells.** *Current opinion in cell biology*  
Brunet, A., Rando, T. A.  
2017; 45: 1-7
  - **Single-Cell Transcriptomic Analysis Defines Heterogeneity and Transcriptional Dynamics in the Adult Neural Stem Cell Lineage.** *Cell reports*  
Dulken, B. W., Leeman, D. S., Boutet, S. C., Hebestreit, K., Brunet, A.  
2017; 18 (3): 777-790
  - **Non-model model organisms.** *BMC biology*  
Russell, J. J., Theriot, J. A., Sood, P. n., Marshall, W. F., Landweber, L. F., Fritz-Laylin, L. n., Polka, J. K., Oliferenko, S. n., Gerbich, T. n., Gladfelter, A. n., Umen, J. n., Bezanilla, M. n., Lancaster, et al  
2017; 15 (1): 55
  - **Dynamic landscape and regulation of RNA editing in mammals.** *Nature*  
Tan, M. H., Li, Q. n., Shanmugam, R. n., Piskol, R. n., Kohler, J. n., Young, A. N., Liu, K. I., Zhang, R. n., Ramaswami, G. n., Ariyoshi, K. n., Gupte, A. n., Keegan, L. P., George, et al  
2017; 550 (7675): 249-54
  - **Bursts of Reprogramming: A Path to Extend Lifespan?** *CELL*  
Mahmoudi, S., Brunet, A.  
2016; 167 (7): 1672-1674
  - **Efficient genome engineering approaches for the short-lived African turquoise killifish.** *Nature protocols*  
Harel, I., Valenzano, D. R., Brunet, A.  
2016; 11 (10): 2010-2028
  - **Characterization of the direct targets of FOXO transcription factors throughout evolution.** *Aging cell*  
Webb, A. E., Kundaje, A., Brunet, A.  
2016; 15 (4): 673-685
  - **FoxO3 regulates neuronal reprogramming of cells from postnatal and aging mice** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Ahlenius, H., Chanda, S., Webb, A. E., Yousif, I., Karmazin, J., Prusiner, S. B., Brunet, A., Suedhof, T. C., Wernig, M.  
2016; 113 (30): 8514-8519
  - **The Aging Epigenome** *MOLECULAR CELL*  
Booth, L. N., Brunet, A.  
2016; 62 (5): 728-744
  - **Deconstructing Dietary Restriction: A Case for Systems Approaches in Aging.** *Cell metabolism*  
Yeo, R., Brunet, A.  
2016; 23 (3): 395-396
  - **AMPK: An Energy-Sensing Pathway with Multiple Inputs and Outputs** *TRENDS IN CELL BIOLOGY*  
Hardie, D. G., Schaffer, B. E., Brunet, A.  
2016; 26 (3): 190-201
  - **The African Turquoise Killifish Genome Provides Insights into Evolution and Genetic Architecture of Lifespan** *CELL*  
Valenzano, D. R., Benayoun, B. A., Singh, P. P., Zhang, E., Etter, P. D., Hu, C., Clement-Ziza, M., Willemsen, D., Cui, R., Harel, I., Machado, B. E., Yee, M., Sharp, et al  
2015; 163 (6): 1539-1554
  - **High telomerase is a hallmark of undifferentiated spermatogonia and is required for maintenance of male germline stem cells.** *Genes & development*  
Pech, M. F., Garbuzov, A., Hasegawa, K., Sukhwani, M., Zhang, R. J., Benayoun, B. A., Brockman, S. A., Lin, S., Brunet, A., Orwig, K. E., Artandi, S. E.  
2015; 29 (23): 2420-2434
  - **Identification of AMPK Phosphorylation Sites Reveals a Network of Proteins Involved in Cell Invasion and Facilitates Large-Scale Substrate Prediction.** *Cell metabolism*

- Schaffer, B. E., Levin, R. S., Hertz, N. T., Maures, T. J., Schoof, M. L., Hollstein, P. E., Benayoun, B. A., Banko, M. R., Shaw, R. J., Shokat, K. M., Brunet, A. 2015; 22 (5): 907-921
- **Lipid Profiles and Signals for Long Life** *TRENDS IN ENDOCRINOLOGY AND METABOLISM*  
Schroeder, E. A., Brunet, A.  
2015; 26 (11): 589-92
  - **Epigenetic regulation of ageing: linking environmental inputs to genomic stability.** *Nature reviews. Molecular cell biology*  
Benayoun, B. A., Pollina, E. A., Brunet, A.  
2015; 16 (10): 593-610
  - **A Fish in the Fountain of Youth** *CELL*  
Brunet, A.  
2015; 163 (1): 20
  - **Shockingly Early: Chromatin-Mediated Loss of the Heat Shock Response.** *Molecular cell*  
Booth, L. N., Brunet, A.  
2015; 59 (4): 515-516
  - **Encoding immortality: Transcriptional control of telomerase in stem cells in vivo**  
Pech, M., Garbuzov, A., Sukhwani, M., Benayoun, B., Lin, S., Brunet, A., Orwig, K., Artandi, S. E.  
AMER ASSOC CANCER RESEARCH.2015
  - **AMP-Activated Protein Kinase Directly Phosphorylates and Destabilizes Hedgehog Pathway Transcription Factor GLI1 in Medulloblastoma.** *Cell reports*  
Li, Y., Luo, J., Mosley, Y. C., Hedrick, V. E., Paul, L. N., Chang, J., Zhang, G., Wang, Y., Banko, M. R., Brunet, A., Kuang, S., Wu, J., Chang, et al  
2015; 12 (4): 599-609
  - **Stem Cell Aging and Sex: Are We Missing Something?** *Cell stem cell*  
Dulken, B., Brunet, A.  
2015; 16 (6): 588-590
  - **A platform for rapid exploration of aging and diseases in a naturally short-lived vertebrate.** *Cell*  
Harel, I., Benayoun, B. A., Machado, B., Singh, P. P., Hu, C., Pech, M. F., Valenzano, D. R., Zhang, E., Sharp, S. C., Artandi, S. E., Brunet, A.  
2015; 160 (5): 1013-1026
  - **Inhibition of pluripotency networks by the rb tumor suppressor restricts reprogramming and tumorigenesis.** *Cell stem cell*  
Kareta, M. S., Gorges, L. L., Hafeez, S., Benayoun, B. A., Marro, S., Zmoos, A., Cecchini, M. J., Spacek, D., Batista, L. F., O'Brien, M., Ng, Y., Ang, C. E., Vaka, et al  
2015; 16 (1): 39-50
  - **Cell biology. Lysosomal lipid lengthens life span.** *Science*  
Han, S., Brunet, A.  
2015; 347 (6217): 32-33
  - **The African Turquoise Killifish: A Model for Exploring Vertebrate Aging and Diseases in the Fast Lane.** *Cold Spring Harbor symposia on quantitative biology*  
Harel, I., Brunet, A.  
2015; 80: 275-279
  - **Geroscience: Linking Aging to Chronic Disease** *CELL*  
Kennedy, B. K., Berger, S. L., Brunet, A., Campisi, J., Cuervo, A., Epel, E. S., Franceschi, C., Lithgow, G. J., Morimoto, R. I., Pessin, J. E., Rando, T. A., Richardson, A., Schadt, et al  
2014; 159 (4): 708-12
  - **H3K4me3 Breadth Is Linked to Cell Identity and Transcriptional Consistency.** *Cell*  
Benayoun, B. A., Pollina, E. A., Ucar, D., Mahmoudi, S., Karra, K., Wong, E. D., Devarajan, K., Daugherty, A. C., Kundaje, A. B., Mancini, E., Hitz, B. C., Gupta, R., Rando, et al  
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