Stanford



Anne Brunet

Michele and Timothy Barakett Endowed Professor

Genetics

NIH Biosketch available Online Curriculum Vitae available Online

Bio

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

- Elected Member, American Academy of Arts and Sciences (2025)
- Pioneer Award, NIH Director's Fund (2025)
- NOMIS Award, NOMIS (2023)
- Lurie Prize in Biomedical Sciences, FNIH (2022)
- 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 Reseach (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 Superieure, 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: https://glenncenter.stanford.edu/

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Organismal aging is fascinating. At the root of many diseases (e.g. cardiovascular disease, cancer, and neurodegenerative diseases), aging is exceptionally complex and often defies conventional rules of biological processes.

To address this challenge, our lab has combined different organisms with the goal of uncovering new mechanisms that modulate aging. For example, we showed that chromatin modifiers impact lifespan, and we made the unexpected discovery that lifespan extension by chromatin modifiers could be inherited in a transgenerational manner. In mammals, we also identified the functional mechanisms that influence regenerative pools of stem cells, notably in the brain, with the goal of reverting features of brain aging and preventing cognitive decline.

We have pioneered the naturally short-lived African killifish as a transformative vertebrate model to study aging and longevity. By developing the genetic and genomic toolkit for this species – assembling its genome and developing a versatile CRISPR/Cas9 pipeline – we have transformed this organism into a powerful vertebrate model to study longevity. In recent years, we have used the killifish to identify previously unknown candidate genes and mechanisms underlying lifespan differences in vertebrates. We have also used the killifish to understand the molecular logic of “suspended animation” states, which allow long-term protection of organisms in nature.

Teaching

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Connor Duffy, Ed Gelernt, Siavash Moghadami, Thao Nguyen, Brent Perlman, Kit Vodehnal, Genper Wong

Postdoctoral Faculty Sponsor

Daniel Heinzer Avar, Giulia Notarangelo, Nimrod Rappoport, Daniel Richard, Gina Wade

Doctoral Dissertation Advisor (AC)

Jacob Fyda, Oswaldo Martinez, Jeeyoon Na, Angela Pogson, Jason Yang

Doctoral Dissertation Co-Advisor (AC)

Brandon Ameglio

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Cancer Biology (PhD Program)

- Genetics (PhD Program)
- Neurosciences (PhD Program)

Publications

PUBLICATIONS

- **An in vivo resource of age-regulated C. elegans intestinal secretory-pathway proteins highlights secreted enzymes associated with lifespan regulation.** *Cell reports*
  Miklas, J. W., Papsdorf, K., Sun, E. D., Tsenter, A., Haseley, N. R., Ameglio, B., Medoh, U. N., Richard, D., McCarthy, F., Artiles, K. L., Hims, A., Levina, A., Zhou, et al
  2026; 45 (9): 117902

- **Lipidomic profiling reveals age-dependent changes in plasma membrane lipids that affect neural stem cell aging.** *Science advances*
  Zhao, X., Feitzinger, R. M., Na, J., Yan, X., Erickson, A., Contrepois, K., Zhou, O. Y., Vallania, F., Ellenberger, M., Kashiwagi, C. M., Gagnon, S. D., Siebrand, C. J., Cabruja, et al
  2026; 12 (31): eaeh9771

- **Signatures of aging and disease in a single organelle.** *Science (New York, N.Y.)*
  Na, J., Brunet, A.
  2026; 393 (6810): 461

- **Somatic mutations reveal the ontogeny of microglia in human ageing.** *Nature*
  Belk, J. A., Zhang, Y., Reilly, E. E., Shi, Q., Liu, D. D., Womack-Gambrel, N., van der Linde, M., Ma, L., Paul, D., Enciso, A. M., Kalluru, R., Weiss, J., Li, et al
  2026

- **Lifelong behavioral screen reveals an architecture of vertebrate aging.** *Science (New York, N.Y.)*
  Bedbrook, C. N., Nath, R. D., Zhang, L., Linderman, S. W., Brunet, A., Deisseroth, K.
  2026; 391 (6790): eaea9795

- **Multi-tissue transcriptomic aging atlas reveals predictive aging biomarkers in the killifish.** *Nature aging*
  Costa, E. K., Chen, J., Guldner, I. H., Mboning, L., Schmahl, N., Tsenter, A., Nagvekar, R., Wu, M. R., Moran-Losada, P., Bouchard, L. S., Wang, S., Singh, P. P., Pellegrini, et al
  2026

- **Targeting immune cells in the aged brain reveals that engineered cytokine IL-10 enhances neurogenesis and improves cognition.** *Immunity*
  Navarro Negredo, P., You, J., Hauptschein, M., Schroer, A. B., Richard, D. J., Abhiraman, G. C., Tsai, A. P., Sun, E. D., Notarangelo, G., Ramirez-Matias, J., Zhou, O. Y., Buckley, M. T., Malacon, et al
  2026

- **Spatial transcriptomic clocks reveal cell proximity effects in brain ageing.** *Nature*
  Sun, E. D., Zhou, O. Y., Hauptschein, M., Rappoport, N., Xu, L., Navarro Negredo, P., Liu, L., Rando, T. A., Zou, J., Brunet, A.
  2024

- **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., Astre, 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., Prélot, 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

- **Engulfment by brain macrophages in a short-lived vertebrate.** *bioRxiv : the preprint server for biology*
  Nagvekar, R., Pogson, A. N., Kalakuntla, P. R., Barr, H. J., Jaimes, A. M., Perry, S. V., Costa, E. K., Chen, J., Boos, F., Negredo, P. N., Seeker, L. A., Jaggard, J. B., Barajas, et al
  2026

- **Toward actionable interventions in human aging (12th ARDD meeting, 2025).** *Aging*
  Dekan, A., Lore, S., Yoon, Y. E., Sjöholm, A., Tyshkovskiy, A., Terskikh, A., Cuervo, A. M., Georgievskaya, A., Heinz, A., Seluanov, A., Adams, A., Tsai, A. P., Murray, et al
  2026; 18 (1): 282-302

- **Molecular evolution of animal aging.** *The EMBO journal*
  Nussey, D. H., d'Adda di Fagagna, F., Bardin, A. J., Blau, H., Brunet, A., Bulavin, D. V., Guo, L., Hara, E., Junker, J. P., Gorbunova, V., Mittelbrunn, M., Rera, M., Reznick, et al
  2026

- **Past, present and future perspectives on the science of aging.** *Nature aging*
  Ambrosio, F., Artyomov, M. N., Austad, S. N., Barzilai, N., Belmonte, J. C., Belsky, D. W., Benayoun, B. A., Brunet, A., Dönertaş, H. M., Dubal, D. B., Fang, E. F., Feige, J. N., Fried, et al
  2026; 6 (1): 6-22

- **SpatialProp: tissue perturbation modeling with spatially resolved single-cell transcriptomics.** *bioRxiv : the preprint server for biology*
  Sun, E. D., Buendia, A., Brunet, A., Zou, J.
  2025

- **Life-long behavioral screen reveals an architecture of vertebrate aging.** *bioRxiv : the preprint server for biology*
  Bedbrook, C. N., Nath, R. D., Zhang, L., Linderman, S. W., Brunet, A., Deisseroth, K.
  2025

- **Age-related microbiome metabolites alter RNA splicing and chromatin accessibility in the brain.** *bioRxiv : the preprint server for biology*
  Chakraborty, M., Shi, S. M., Porter, I. E., Richard, D. J., Marinov, G. K., Moore, A. A., Blum, J. L., Natarajan, A., Jahng, J. W., Wu, J. C., Lu, S. X., Davidson, S. M., Greenleaf, et al
  2025

- **Plasma proteomics links brain and immune system aging with healthspan and longevity.** *Nature medicine*
  Oh, H. S., Le Guen, Y., Rappoport, N., Urey, D. Y., Farinas, A., Rutledge, J., Channappa, D., Wagner, A. D., Mormino, E., Brunet, A., Greicius, M. D., Wyss-Coray, T.
  2025

- **Hallmarks of stem cell aging.** *Cell stem cell*
  Rando, T. A., Brunet, A., Goodell, M. A.
  2025

- **Multi-tissue transcriptomic aging atlas reveals predictive aging biomarkers in the killifish.** *bioRxiv : the preprint server for biology*
  Costa, E. K., Chen, J., Guldner, I. H., Mboning, L., Schmahl, N., Tsenter, A., Wu, M., Moran-Losada, P., Bouchard, L. S., Wang, S., Singh, P. P., Pellegrini, M., Brunet, et al
  2025

- **Brain aging and rejuvenation at single-cell resolution.** *Neuron*
  Sun, E. D., Nagvekar, R., Pogson, A. N., Brunet, A.
  2025; 113 (1): 82-108

- **PARTIAL REPROGRAMMING OF THE AGING NEUROGENIC NICHE**
  Xu, L., Ramirez-Matias, J., Hauptschein, M., Sun, E., Lunger, J., Buckley, M., Brunet, A.
  OXFORD UNIV PRESS.2024: 268-269

- **Longevity biotechnology: bridging AI, biomarkers, geroscience and clinical applications for healthy longevity.** *Aging*

Lyu, Y. X., Fu, Q., Wilczok, D., Ying, K., King, A., Antebi, A., Vojta, A., Stolzing, A., Moskalev, A., Georgievskaya, A., Maier, A. B., Olsen, A., Groth, et al
2024; 16

- **Spatiotemporal transcriptomic profiling and modeling of mouse brain at single-cell resolution reveals cell proximity effects of aging and rejuvenation.** *bioRxiv : the preprint server for biology*
  Sun, E. D., Zhou, O. Y., Hauptschein, M., Rappoport, N., Xu, L., Navarro Negredo, P., Liu, L., Rando, T. A., Zou, J., Brunet, A.
  2024
- **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 CRTC-1 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. 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

- **AMPKa1-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.
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