| SSBH 2021<br>Curriculum Vitae |                                 |  |
|-------------------------------|---------------------------------|--|
| Name                          | Aris N. Economides              |  |
| Organization                  | Regeneron Pharmaceuticals, Inc. |  |
| Position & Title              | VP - Research                   |  |

| Educational background & Professional experience |   |  |  |
|--|---|--|--|
| 2017-present                                     | Regeneron Pharmaceuticals                           | VP – Research  |  |
| 2015-2016  | Regeneron Pharmaceuticals                           | Cofounder – Regeneron Genetics Center<br>Executive Director<br>Cofounder – Regeneron Genetics Center |  |
| 2004-2015  | Regeneron Pharmaceuticals                           | Senior Director  |  |
| 2002-2003  | Regeneron Pharmaceuticals                           | Director   |  |
| 2001-2001  | Regeneron Pharmaceuticals                           | Associate Director   |  |
| 2000-2000  | Regeneron Pharmaceuticals                           | Senior Staff Scientist   |  |
| 1998-2000  | Regeneron Pharmaceuticals<br>Rockefeller University | Staff Scientist<br>Visiting Scientist  |  |
| 1996-1997  | Regeneron Pharmaceuticals                           | Scientist  |  |
| 1992-1995  | Regeneron Pharmaceuticals                           | Postdoctoral Fellow  |  |
| 1987-1992  | Michigan State University                           | Graduate Student (Ph.D., Biochemistry)   |  |
| 1986-1987  | Dartmouth College                                   | Graduated Student (Biology)  |  |
| 1982-1986  | Bennington College                                  | Undergraduate Student (Nat. Sci. & Math)   |  |

## **Research Interests**

My research is focused on several different areas: technology development projects in the area of protein therapeutics, the development of biologic as well as genetic therapies for rare diseases, and understanding the molecular mechanisms that drive key phenotypes in both common and rare diseases with the aim of using that information to define new targets and develop corresponding therapies (i.e. what is usuall referred as target discovery, validation, and drug development). In addition, I have been deeply involved in the founding of Regeneron Genetics Center, where I currently run a group that is devoted to the biological validation and exploitation of human genetics findings.

## **Publications**

- 1. Alessi Wolken, D.M., Idone, V., Hatsell, S.J., Yu, P.B., and Economides, A.N. (2018). The obligatory role of Activin A in the formation of heterotopic bone in Fibrodysplasia Ossificans Progressiva. Bone *109*, 210-217.
- 2. Aykul, S., Corpina, R.A., Goebel, E.J., Cunanan, C.J., Dimitriou, A., Kim, H.J., Zhang, Q., Rafique, A., Leidich, R., Wang, X., *et al.* (2020). Activin A forms a non-signaling complex with ACVR1 and type II Activin/BMP receptors via its finger 2 tip loop. Elife 9.
- 3. Dey, D., Bagarova, J., Hatsell, S.J., Armstrong, K.A., Huang, L., Ermann, J., Vonner,

- A.J., Shen, Y., Mohedas, A.H., Lee, A., *et al.* (2016). Two tissue-resident progenitor lineages drive distinct phenotypes of heterotopic ossification. Science translational medicine *8*, 366ra163.
- 4. Goebel, E.J., Corpina, R.A., Hinck, C.S., Czepnik, M., Castonguay, R., Grenha, R., Boisvert, A., Miklossy, G., Fullerton, P.T., Matzuk, M.M., *et al.* (2019). Structural characterization of an activin class ternary receptor complex reveals a third paradigm for receptor specificity. Proc Natl Acad Sci U S A *116*, 15505-15513.
- 5. Hatsell, S.J., Idone, V., Wolken, D.M., Huang, L., Kim, H.J., Wang, L., Wen, X., Nannuru, K.C., Jimenez, J., Xie, L., *et al.* (2015). ACVR1R206H receptor mutation causes fibrodysplasia ossificans progressiva by imparting responsiveness to activin A. Science translational medicine *7*, 303ra137.
- 6. Upadhyay, J., Xie, L., Huang, L., Das, N., Stewart, R.C., Lyon, M.C., Palmer, K., Rajamani, S., Graul, C., Lobo, M., *et al.* (2017). The Expansion of Heterotopic Bone in Fibrodysplasia Ossificans Progressiva is Activin A-Dependent. J Bone Miner Res.