Zachary Benjamin Hill, Ph.D.

University of California San Francisco, Box 2552, Byers Hall 504
San Francisco, CA 94258
Cell: [redacted]

December 22, 2014

Boards Support Section, ADF&G
Attention: Glenn Haight
P.O. Box 115526
Juneau, AK 99811-5526
Fax: 907-465-6094
glenn.haight@alaska.gov

Dear Members of the Joint Board of Fisheries and Game:

I am writing to express my desire to be appointed to the position of Commissioner of the Alaska Department of Fish and Game. As Commissioner, I would implement a science forward approach to resource management with emphasis on developing sustainable resources that can utilized by Alaskans, both personally and economically, for years to come.

While I know that I would bring a strong scientific background to the position of Commissioner, I feel that I would also bring a deep understanding of fish and wildlife issues based on my upbringing and life experiences in Alaska. I was born in Palmer and raised in the village of Sleetmute on the Kuskokwim River from the age of 1. My family has a long history in Alaska, with my grandfather settling in the Matanuska Valley in the 1930's and my father being born in Palmer. Subsistence has been a long held family tradition and an important part of my childhood. I personally harvested my first moose at the age of 11. In addition to a subsistence lifestyle, I have interacted with Alaska's fish and wildlife resources in other ways. As a youth I worked as a deck hand for my father, a commercial permit holder, on the Kuskokwim River until that fishery was closed. In Sleetmute, I have interacted with many of the fishing and hunting guides that use the upper Kuskokwim as their base of operation, gaining insight into the economic and resource issues related to their profession. Additionally, through my parents lodging business in Sleetmute, I have interacted with a large number of fish and wildlife biologists performing studies on the upper Kuskokwim and Holitna drainages. I thoroughly enjoyed learning about their day-to-day operations as well as long-term project goals. All of these life experiences have shown me the many different sides to the problem that is fish and game management in Alaska and will directly inform my resource management style as Commissioner.

After graduating from high school in Sleetmute, I was fortunate enough to attend the University of Alaska Fairbanks as a UA Scholar, where I excelled in the study of Chemistry and Biochemistry. After graduating *Magna cum Laude*, I pursed my graduate studies in Chemistry and Chemical Biology at the University of Washington. Since receiving my Ph.D. in 2011, I have been carrying out research at the University of California San Francisco as a Helen Hay Whitney Postdoctoral Fellow (considered by many to be the most prestigious

biomedical postdoctoral fellowship in the U.S.). During my research I have published six peer-reviewed articles in highly regarded chemistry and biochemistry journals, as well as given numerous lecture and poster presentations at conferences. While my studies have unfortunately kept me from living in Alaska for the last 8 years, I have maintained stron ties with my family and friends, while attempting to visit Alaska at least twice a year. It has long been a desire of mine to bring my scientific expertise back to Alaska and use it in some way to better the state. I feel that appointment, as Commissioner, would be the perfec opportunity for me to do so. While the direct topics of my scientific research are somewhat tangential to projects at ADF&G, the broader scientific toolset that I have obtained will be directly applicable. This includes knowledge in hypothesis driven research, data analysis, biological statistics, genetics, general biology, data management and presentation responsible conduct of research and ethics, project management, collaboration, budgeting, and fundraising. All of these skills will directly aid me in my role as Commissioner.

For the reasons given above I believe that I am in a unique position the fill the role of Commissioner and would bring new perspective and expertise to the role. While Commissioner, I would assemble teams of highly talented, highly motivated individuals to tackle the many problems faced by ADF&G. I would practice a meritocratic personnel management style with a strong emphasis on personal responsibility, project management and teamwork. I believe that one of the top assets that ADF&G has is it many talented employees. I would continue to make ADF&G a place that attracts highly talented individuals. I ask the Joint Board of Fisheries and Game to please consider my application and thank them for their time.

Sincerely,

Zachary B. Hill, Ph.D.
Postdoctoral Fellow
University of California San Francisco

Zachary Benjamin Hill

University of California San Francisco
Department of Pharmaceutical Chemistry
Box 2552, Byers Hall Room 504, San Francisco, CA 94158
Cell: [redacted]
Email: [redacted]

EDUCATION

Ph.D. in Chemistry	University of Washington Thesis Advisor: Dustin J. Maly Thesis Title: "A Chemical Genetic Method for Studying the Location-Specific Function of Protein Kinases"	2011
B.S. in Chemistry	University of Alaska Fairbanks *GPA 3.94/4.0, Magna cum Laude*	2006

RESEARCH EXPERIENCE

Postdoctoral Research, University of California San Francisco, Department of Pharmaceutical Chemistry — Feb. 2012-Present
Research Advisor: James A. Wells

- Affinity directed post-translational modifications and their use for target validation of small-molecule drugs

Graduate Research, University of Washington, Department of Chemistry — 2008-2011
Research Advisor: Dustin J. Maly

- Development of potent and selective bivalent kinase inhibitors based on protein-small molecule conjugates

Graduate Research, University of Washington, Department of Chemistry — 2006-2008
Research Advisor: Glenn Bartholomew

- Synthesis and characterization of perylene-based compounds for use in light-emitting electrochemical cells

Undergraduate Research, University of Alaska Fairbanks, Department of Chemistry — Summer 2005, 2006
Research Advisor: Kelly L. Drew

- HPLC analysis of amino acid concentration in brain samples from hibernating arctic ground squirrels

Undergraduate Research, University of Alaska Fairbanks, Department of Chemistry — Spring 2006
Research Advisor: John W. Keller

- Sequencing and cloning of genes from soil bacteria capable of utilizing the amino acid aminoisobutyrate as a sole nitrogen source

PUBLICATIONS

1. **Hill, Z.B.**; Pollock, S.; Zhuang, M.; Wells, J.A., Proximity tagging the protein targets of small molecules by utilizing an engineered NEDD8 ligase. *Manuscript in Preparation*
2. Andrews, S.; **Hill, Z. B.**; Perera, B. G.; Maly, D. J., Label transfer reagents to probe p38 MAPK binding partners. *ChemBioChem.* 2013, 14, 209-16

3. **Hill, Z. B.**; Perera, B. G.; Andrews, S.; Maly, D. J., Targeting Diverse Signaling Interaction Sites Allows the Rapid Generation of Bivalent Kinase Inhibitors. *ACS Chem. Biol.* 2012, 7, 487-95
4. **Hill, Z. B.**; Perera, B. G.; Maly, D. J., Bivalent inhibitors of the tyrosine kinases ABL and SRC; determinates of potency and selectivity. *Mol. BioSyst.* 2011, 7, 447-56
5. Gregersen, K. A. D.; **Hill, Z. B.**; Gadd, J. C.; Fujimoto, B. S.; Maly, D.J .; Chiu, D. T., Intracellular Delivery of Bioactive Molecules using Light-Addressable Nanocapsules. *ACS Nano*. 2010, 4, 7603-11
6. **Hill, Z. B.**; Perera, B. G.; Maly, D. J., A chemical genetic method for generating bivalent inhibitors of protein kinases. *J. Am. Chem. Soc.* 2009, 131, (19), 6686-8
   - Highlighted in *ACS Chemical Biology*, 2009, 4, (7), 492
   - Highlighted in *ChemBioChem*, 2009, 10, 2445-48
   - Highlighted on *Biology F1000*
7. **Hill, Z. B.**; Rodovsky, D. B.; Leger, J.M.; Bartholomew, G. P., Synthesis and utilization of perylene-based *n*-type small molecules in light-emitting electrochemical cells. *Chem. Commun.* 2008, 48, 6594-6.

PRESENTATIONS

1. Hill, Z.B., Development of an Enzymatic Labeling Method to Identify the Protein Targets of Bioactive Small Molecules. Invited Research Talk. *Rising Stars in Chemical Biology Mini Symposium*, University of Utah, October 2014
2. Hill, Z. B; Zhuang, M; Wells, J. A., Development of a Proximity Labeling Method to Identify the Protein Targets of Bioactive Small Molecules. Poster. *Eleventh International Symposium on Mass Spectrometry in the Health & Life Sciences: Molecular & Cellular Proteomics*, San Francisco, CA, August 2014
3. Hill, Z. B; Perera, G. K.; Maly, D. J., Self-assembled bivalent inhibitors of protein kinases. Research Talk. *The International Chemical Congress of the Pacific Basin Societies*, Honolulu, HI, December 2010
4. Hill, Z. B; Perera, G. K.; Maly, D. J., Modular Bivalent Inhibitors of Protein Kinases. Poster. *National Meeting of the American Chemical Society*, San Francisco, CA, Spring 2010
5. Hill, Z. B., A chemical genetic method for generating bivalent ligands of protein kinases. Invited Research Talk. *Volcano Conference in Bioorganic Chemistry,* Mount Rainier, WA, February 2009.

TEACHING EXPERIENCE

Graduate Teaching Assistant, University of Washington, Department of Chemistry

Advanced Organic Spectroscopy Lab	Winter 2009, 2010
Organic Chemistry Lab	Spring 2008
Organic Chemistry	Winter 2007-Winter 2008

Undergraduate Teaching Assistant, University of Alaska Fairbanks, Department of Chemistry

Advanced Analytical Laboratory	Spring 2006
General Chemistry	Fall 2005

PROFESSIONAL AFFILIATIONS

- Member, International Chemical Biology Society

HONORS AND AWARDS

Postdoctoral

- 2013-2016 Howard Hughes Medical Institute Fellow of The Helen Hay Whitney Foundation
- 2013 Life Science Research Foundation Postdoctoral Fellowship, Finalist (Application Withdrawn)
- 2012 NIH, NRSA Postdoctoral Fellowship, Impact Score 18 (Application Withdrawn)

Graduate

- 2006-2007 Hitchings Fellowship (1 year award)
- 2006 University of Washington NSF Center for Nanotechnology Early-Bird Fellowship

Undergraduate

- 2005-2006 University of Alaska Fairbanks, Chemistry Student of the Year
- UA Scholars Award (4 year tuition waiver, given to top 10% of high school graduating class)
- UAF Academic 2 Year Housing Waiver (given to the top student of high school graduating class)
- Alaska Association of Secondary Principals: British Petroleum Scholarship (4 year award)
- Alaska Air Cargo Scholarship (1 year award)

REFERENCES

References available upon request.