

Institution: U.S. Naval Academy
Program: Systems Engineering

Date: 22 February 2012

1. Name: Sarah L. Noble

2. Education:

BS	Electrical Engineering	Valparaiso University	2006
PhD	Electrical Engineering	Purdue University	2011

3. Academic experience:

U.S. Naval Academy	Assistant Professor	2011	Full time
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4. Non-academic experience:

Fermi National Accelerator Laboratory	Intern	Summer 2004	Full time
GE Healthcare	Intern	Summer 2005	Full time

5. Certifications or professional registrations: none

6. Current membership in professional organizations:

American Society for Engineering Education (ASEE)
Institute of Electrical and Electronics Engineers (IEEE)
Biomedical Engineering Society (BMES)
Society of Women Engineers (SWE)
Order of the Engineer
Tau Beta Pi (Engineering Honor Society)
Eta Kappa Nu (Electrical Engineering Honor Society)

7. Honors and awards

- National Science Foundation Quantitative Physiology Scholar, Purdue University (2010-2011) – Selected as one of nine graduate scholars to collaborate with and mentor socio-economically challenged undergraduates
- First Place in Engineering Sciences, Sigma Xi Graduate Student Poster Competition, Purdue University (2010) – One of three first place winners in the university-wide poster competition
- Best Presentation Award for the Biology Session, American Control Conference (2009) – Awarded to the best presenter of the session
- Best Poster Finalist for Translational/Clinical Research, Indiana University Simon Cancer Center Cancer Research Day (2009) – Selected as one of two finalists
- National Science Foundation GK-12 Fellow, Purdue University (2008-2009) – Selected as one of eight fellowship recipients among all Purdue University applicants
- Outstanding Graduate Teaching Assistant Award, Purdue University (2008) – One of two recipients nominated by the School of Electrical and Computer Engineering
- Magoon Excellence in Teaching Award, Purdue University School of Electrical and Computer Engineering (2008) – Awarded to fifteen outstanding teaching assistants in the School of Electrical and Computer Engineering

8. Service activities (within and outside of the institution):

Member, Systems Engineering Outreach Committee, 2011-present
Independent Study Project Advisor

Reviewer:

- American Control Conference (2008-present)
- Conference on Decision and Control (2008-present)

Organizer:

- Mini-symposium "Control of Cellular Processes: Computational and Experimental Approaches" for Society of Industrial and Applied Mathematics (SIAM) Conference on the Life Sciences (2012)

9. Briefly list the most important publications and presentations from the past five years:

S.L. Noble, E. Sherer, R.E. Hannemann, D. Ramkrishna, T. Vik, A.E. Rundell, "Using adaptive model predictive control to customize maintenance therapy chemotherapeutic dosing for childhood acute lymphoblastic leukemia," *Journal of Theoretical Biology*, vol. 264 pp. 990-1002, 2010.

S.L. Noble, L.E. Wendel, M.M. Donahue, G.T. Buzzard, A.E. Rundell, "Sparse-grid-based Adaptive Model Predictive Control of HL60 Cellular Differentiation," *IEEE Transactions on Biomedical Engineering*, vol. 59 no. 2 pp. 456-463, 2012.

S. L. Noble and A. E. Rundell, "Model Predictive Control Applied To Cellular Processes," in *Encyclopedia of Applied and Computational Mathematics*. vol. 1, B. Engquist, Ed., ed: Springer, to appear in 2013.

S.L. Noble, E. Sherer, D. Ramkrishna, A.E. Rundell, "Achieving targeted granulocyte differentiation through the use of interpolation and optimization techniques," American Control Conference, Seattle, WA, 2008.

S.L. Noble and A.E. Rundell, "Targeting a fixed percentage of granulocyte differentiation using experiments designed via nonlinear model predictive control," American Control Conference, St. Louis, MO, 2009.

S.L. Noble, G.T. Buzzard, and A.E. Rundell, "Feasible Parameter Space Characterization with Adaptive Sparse Grids for Nonlinear Systems Biology Models," American Control Conference, San Francisco, CA, 2011.

10. Briefly list the most recent professional development activities:

Participated in "Preparing Future Faculty" course, Purdue University (2010)

Participated in college teaching workshops, Purdue University (2010)

Attended and presented papers at the ACC and CDC