



## Pamela A. Basto

- Postdoctoral Medical Fellow, Oncology
- Fellow in Medicine - Med/Hematology

### Bio

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#### PROFESSIONAL EDUCATION

- Fellowship, Stanford , Hematology/Oncology
- Residency, The Mount Sinai Hospital- Manhattan , Internal Medicine- PSTP (2020)
- M.D., Stanford , Medicine (2018)
- Ph.D., Harvard-MIT , Medical Engineering Medical Physics (2013)
- B.S., The University of Texas at Austin , Biomedical Engineering

#### PATENTS

- "United States Patent 9526702 Vaccine Nanotechnology", Massachusetts Institute of Technology, The Brigham and Women's Hospital, Inc., President and Fellows of Harvard College, The Children's Medical Center Corporation, Dec 27, 2016
- "United States Patent 9381477 Microfluidic synthesis of organic nanoparticles", Massachusetts Institute of Technology, The Brigham and Women's Hospital, Inc., Jul 5, 2016
- "United States Patent 8,637,028 Adjuvant Incorporation in Immunotherapeutics", President and Fellows of Harvard College, MIT, The Brigham & Women's Hospital, Jan 28, 2014
- "United States Patent 8,591,905 Nicotine Immunotherapeutics", President and Fellows of Harvard College, MIT, The Brigham & Women's Hospital, Nov 26, 2013
- "United States Patent 8,343,497 Targeting of antigen presenting cells with immunonanotherapeutics", President and Fellows of Harvard College, MIT, The Brigham & Women's Hospital, Jan 1, 2013
- "United States Patent 8,277,812 Immunonanotherapeutics that provide IgG humoral response without T-cell antigen", President and Fellows of Harvard College, MIT, The Brigham & Women's Hospital, Oct 2, 2012

### Publications

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#### PUBLICATIONS

- **Interrogating the roles of lymph node metastasis in systemic immune surveillance.** *Clinical & experimental metastasis*  
Basto, P. A., Reticker-Flynn, N. E.  
2024
- **Lymph node colonization induces tumor-immune tolerance to promote distant metastasis.** *Cell*  
Reticker-Flynn, N. E., Zhang, W., Belk, J. A., Basto, P. A., Escalante, N. K., Pilarowski, G. O., Bejnood, A., Martins, M. M., Kenkel, J. A., Linde, I. L., Bagchi, S., Yuan, R., Chang, et al  
2022
- **Lymph node colonization promotes distant tumor metastasis through the induction of tumor-specific immunosuppression**  
Reticker-Flynn, N. E., Basto, P. A., Zhang, W., Martins, M. M., Chang, S., Gentles, A. J., Sunwoo, J. B., Plevritis, S. K., Engleman, E. G.  
AMER ASSOC CANCER RESEARCH.2020
- **Lymph node colonization promotes distant tumor metastasis through the induction of tumor-specific immunosuppression.**

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AMER ASSOC CANCER RESEARCH.2020: 25–26

- **Lymph node colonization promotes distant tumor metastasis through the induction of systemic immune tolerance**

Reticker-Flynn, N. E., Martins, M. M., Basto, P. A., Zhang, W., Bejnood, A., Gentles, A. J., Sunwoo, J. B., Plevritis, S. K., Engleman, E. G.  
AMER ASSOC CANCER RESEARCH.2019

- **Akt and SHP-1 are DC-intrinsic checkpoints for tumor immunity.** *JCI insight*

Carmi, Y., Prestwood, T. R., Spitzer, M. H., Linde, I. L., Chabon, J., Reticker-Flynn, N. E., Bhattacharya, N., Zhang, H., Zhang, X., Basto, P. A., Burt, B. M., Alonso, M. N., Engleman, et al  
2016; 1 (18)

- **Distribution of alkaline phosphatase, osteopontin, RANK ligand and osteoprotegerin in calcified human carotid atheroma.** *The protein journal*

Higgins, C. L., Isbilir, S., Basto, P., Chen, I. Y., Vaduganathan, M., Vaduganathan, P., Reardon, M. J., Lawrie, G., Peterson, L., Morrisett, J. D.  
2015; 34 (5): 315-28

- **VACCINES. A mucosal vaccine against Chlamydia trachomatis generates two waves of protective memory T cells.** *Science (New York, N.Y.)*

Stary, G., Olive, A., Radovic-Moreno, A. F., Gondek, D., Alvarez, D., Basto, P. A., Perro, M., Vrbanc, V. D., Tager, A. M., Shi, J., Yethon, J. A., Farokhzad, O. C., Langer, et al  
2015; 348 (6241): aaa8205

- **Engineered nanomedicine for myeloma and bone microenvironment targeting.** *Proceedings of the National Academy of Sciences of the United States of America*

Swami, A., Reagan, M. R., Basto, P., Mishima, Y., Kamaly, N., Glavey, S., Zhang, S., Moschetta, M., Seevaratnam, D., Zhang, Y., Liu, J., Memarzadeh, M., Wu, et al  
2014; 111 (28): 10287-92

- **Adjuvant-carrying synthetic vaccine particles augment the immune response to encapsulated antigen and exhibit strong local immune activation without inducing systemic cytokine release.** *Vaccine*

Ilyinskii, P. O., Roy, C. J., O'Neil, C. P., Browning, E. A., Pittet, L. A., Altreuter, D. H., Alexis, F., Tonti, E., Shi, J., Basto, P. A., Iannacone, M., Radovic-Moreno, A. F., Langer, et al  
2014; 32 (24): 2882-95

- **A vector-free microfluidic platform for intracellular delivery** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*

Sharei, A., Zoldan, J., Adamo, A., Sim, W. Y., Cho, N., Jackson, E., Mao, S., Schneider, S., Han, M., Lytton-Jean, A., Basto, P. A., Jhunjhunwala, S., Lee, et al  
2013; 110 (6): 2082-2087

- **Non-invasive assessment of failure torque in rat bones with simulated lytic lesions using computed tomography based structural rigidity analysis** *JOURNAL OF BIOMECHANICS*

Entezari, V., Basto, P. A., Vartanians, V., Zurakowski, D., Snyder, B. D., Nazarian, A.  
2011; 44 (3): 552-556

- **Single-Step Assembly of Homogenous Lipid - Polymeric and Lipid - Quantum Dot Nanoparticles Enabled by Microfluidic Rapid Mixing** *ACS NANO*

Valencia, P. M., Basto, P. A., Zhang, L., Rhee, M., Langer, R., Farokhzad, O. C., Karnik, R.  
2010; 4 (3): 1671-1679

- **Quantitative Segmentation of Principal Carotid Atherosclerotic Lesion Components by Feature Space Analysis Based on Multicontrast MRI at 1.5 T** *IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING*

Karmonik, C., Basto, P., Vickers, K., Martin, K., Reardon, M. J., Lawrie, G. M., Morrisett, J. D.  
2009; 56 (2): 352-360

- **HER-2-Targeted Nanoparticle-Affibody Bioconjugates for Cancer Therapy** *CHEMMEDCHEM*

Alexis, F., Basto, P., Levy-Nissenbaum, E., Radovic-Moreno, A. F., Zhang, L., Pridgen, E., Wang, A. Z., Marein, S. L., Westerhof, K., Molnar, L. K., Farokhzad, O. C.  
2008; 3 (12): 1839-1843

- **Microfluidic platform for controlled synthesis of polymeric nanoparticles** *NANO LETTERS*

Karnik, R., Gu, F., Basto, P., Cannizzaro, C., Dean, L., Kyei-Manu, W., Langer, R., Farokhzad, O. C.  
2008; 8 (9): 2906-2912

- **MICROFLUIDIC SYNTHESIS OF POLYMERIC NANOPARTICLES**

Karnik, R., Gu, F. X., Bose, S., Basto, P., Cannizzaro, C., Langer, R., Farokhzad, O. C., ASME AMER SOC MECHANICAL ENGINEERS.2008: 1921-1922

- **Co-delivery of hydrophobic and hydrophilic drugs from nanoparticle-aptamer bioconjugates** *CHEMMEDCHEM*

Zhang, L., Radovic-Moreno, A. F., Alexis, F., Gu, F. X., Basto, P. A., Bagalkot, V., Jon, S., Langer, R. S., Farokhzad, O. C. 2007; 2 (9): 1268-1271

- **Quantification of carotid atherosclerotic plaque components using feature space analysis and magnetic resonance imaging.** *Conference proceedings : ... Annual International Conference of the IEEE Engineering in Medicine and Biology Society. IEEE Engineering in Medicine and Biology Society. Conference*

Karmonik, C., Basto, P., Morrisett, J. D. 2006; 1: 3102-3105