

María Díaz de León Derby

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RESEARCH INTERESTS

Neglected tropical disease diagnostics.

EDUCATION

- | | |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ongoing | University of California, Berkeley and University of California, San Francisco
Ph.D. in Bioengineering
Advised by Prof. Daniel Fletcher |
| 2013-18 | Tecnológico de Monterrey, Mexico (ITESM)
Bachelor of Science in Mechatronics Engineering
GPA of 96/100 |
| 2016-17 | Karlsruhe Institute of Technology, Germany (KIT)
DAAD Mexican Engineers Exchange Programme
Faculty of Mechanical Engineering |
| 2014-15 | University of British Columbia, Canada (UBC)
International Student Exchange Program
Faculty of Applied Science |

PUBLICATIONS

- [1] Jean T. Coulibaly, Kigbafori D. Silue, Maxim Armstrong, **María Díaz de León Derby**, Michael V. D'Ambrosio, Daniel A. Fletcher, Jennifer Keiser, Karla Fisher, Jason R. Andrews, and Isaac I. Bogoch. "High Sensitivity of Mobile Phone Microscopy Screening for *Schistosoma haematobium* in Azaguié, Côte d'Ivoire". In: *The American Journal of Tropical Medicine and Hygiene* 108.1 (2023), pp. 41–43.
- [2] Sita S. Chandrasekaran, Shreeya Agrawal, Alison Fanton, Aditya R. Jangid, Bérénice Charrez, Arturo M. Escajeda, Sungmin Son, Roger McIntosh, Huyen Tran, Abdul Bhuiya, **María Díaz de León Derby**, et al. "Rapid detection of SARS-CoV-2 RNA in saliva via Cas13". In: *Nature Biomedical Engineering* 6.8 (Aug. 2022), pp. 944–956.
- [3] Parinaz Fozouni*, Sungmin Son*, **María Díaz de León Derby***, Gavin J. Knott, Carley N. Gray, Michael V. D'Ambrosio, Chunyu Zhao, Neil A. Switz, G. Renuka Kumar, Stephanie I. Stephens, Daniela Boehm, et al. "Amplification-free detection of SARS-CoV-2 with CRISPR-Cas13a and mobile phone microscopy". In: *Cell* 184.2 (2021), 323–333.e9.
- [4] Tina Y. Liu, Gavin J. Knott, Dylan C. J. Smock, John J. Desmarais, Sungmin Son, Abdul Bhuiya, Shrutee Jakhanwal, Noam Prywes, Shreeya Agrawal, **María Díaz de León Derby**, Neil A. Switz, et al. "Accelerated RNA detection using tandem CRISPR nucleases". In: *Nature Chemical Biology* 17.9 (Sept. 2021), pp. 982–988.
- [5] Carolina Chávez-Madero*, **María Díaz de León Derby***, Mohamadmahdi Samandari, Carlos Fernando Ceballos-González, Edna Johana Bolívar-Monsalve, Christian Mendoza-Buenrostro, Sunshine Holmberg, Norma Alicia Garza-Flores, Mohammad Ali Almajhadi, Ivonne González-Gamboa, Juan Felipe Yee-de León, et al. "Using chaotic advection for facile high-throughput fabrication of ordered multilayer micro- and nanostructures: continuous chaotic printing". In: *Biofabrication* 12.3 (June 2020), p. 035023.
- [6] Ehsan Samiei, **María Díaz de León Derby**, Andre Van Berg, and Mina Hoorfar. "An electrohydrodynamic technique for rapid mixing in stationary droplets on digital microfluidic platforms". In: *Lab Chip* 17 (2 2017), pp. 227–234.

* denotes equal contribution.

- [7] B. A. Nestor, E. Samiei, R. Samanipour, A. Gupta, A. Berg, **María Díaz de León Derby**, Z. Wang, H. Rezaei Nejad, K. Kim, and M. Hoorfar. “Digital microfluidic platform for dielectrophoretic patterning of cells encapsulated in hydrogel droplets”. In: *RSC Adv.* 6 (62 2016), pp. 57409–57416.

AWARDS AND DISTINCTIONS

2022	SACNAS National Diversity in STEM Conference 2022 Student Travel Award
2021	Service and Diversity, Equity, Inclusion and Belonging (DEIB) Award: UC Berkeley/UCSF Bioengineering
2020	Craven Award in Bioengineering: UC Berkeley Department of Bioengineering
2019	UC MEXUS-CONACYT Doctoral Fellowship for Mexican Students
2016	Mitacs Globalink Fellowship for pursuing research at a Canadian university
2016	DAAD Mexican Engineers Scholarship Program for one year of undergraduate studies in Germany
2014	Foreign Affairs, Trade and Development Canada’s ”Emerging Leaders in the Americas Program Scholarship”