

# JACQUELINE A. DE LORA


CURRENT POSITION: POSTDOCTORAL RESEARCH  
SCHOLARSHIP HOLDER FROM THE MAX PLANCK SOCIETY

CELLULAR BIOPHYSICS DEPARTMENT, LABORATORY OF  
PROFESSOR JOACHIM P. SPATZ, MPIMF

## CONTACT INFORMATION

Physical Addresses

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## LANGUAGES

*Common European Framework of Reference*

**English** Native

### Spanish

Understanding B2

Speaking B1

Writing B1

### German

Understanding A1

Speaking A1

Writing A1

## SKILLS LEVEL

### Programming Languages

MatLab Advanced

Python Beginner

R Advanced

### Adobe Creative Cloud

Acrobat DC Expert

Animate Intermediate

Audition Beginner

Illustrator Expert

### Other Relevant Software

Image J/FIJI Expert

Microsoft Office Expert

Prism Expert

SnapGene Intermediate

## EDUCATION

Dates 23/08/2011 - 05/07/2018  
Qualification Held Doctor of Philosophy (PhD)  
Thesis Title Developing Droplet Based 3D Cell Culture Methods to Enable Investigations of the Chemical Tumor Microenvironment

*Metrics* **236 Views, 153 Downloads**

*Link* [https://digitalrepository.unm.edu/biom\\_etds/186](https://digitalrepository.unm.edu/biom_etds/186)

Organization University of New Mexico (UNM)-  
Biomedical Sciences Graduate Program  
and the Center for  
Biomedical Engineering

Dates 21/08/2005 - 21/05/2010  
Qualifications Held Bachelor of Science (BS) Biology  
Bachelor of Arts (BA) Chemistry  
Organization University of New Mexico

## PREDOCTORAL FELLOWSHIP AWARDS & FUNDING

Dates 01/01/2015 - 30/06/2017  
Fellowship Award NIH Ruth Kirschstein National  
Research Service Award for  
Individual Predoctoral Fellowships to  
Promote Diversity in  
Health-Related Research (F31)

Project Title Cellular Responses to pH and  
oxygen microenvironments in a new  
3D tumor model

Organization University of New Mexico  
Report Link <https://reporter.nih.gov/project-details/9071293>

Dates 01/08/2012 - 31/07/2014  
Fellowship Award Cancer and Nanoscience Training  
Center Fellowship

Organization University of New Mexico, School of  
Medicine and School of Engineering

Dates 01/08/2011 - 31/07/2012  
Fellowship Award Initiative to Maximize Student  
Diversity- NIH Graduate Research  
Fellowship

Organization University of New Mexico, School of  
Medicine

Dates 15/06/2010 - 31/07/2011  
Fellowship Award NIH- Post-baccalaureate Research  
Education Program Fellowship

Organization University of New Mexico,  
Department of Biology

## POSTDOCTORAL EXPERIENCES

- 01/2020 - Current Postdoctoral Researcher I Cellular Biophysics Department I Max Planck Institute for Medical Research I Mentor- Prof. Dr. Joachim Spatz
- 06/2019 - 07/2019 Guest Postdoctoral Researcher I Chemistry and Biochemistry Department I Northern Arizona University I Mentor- Prof. Dr. Gabe Montano
- 10/2018 - 01/2020 Postdoctoral Researcher I Chemical and Biological Engineering Department I University of New Mexico School of Engineering I Mentors- Prof. Dr. Andrew Shreve, Prof. Dr. Gabriel Lopez, and Dr. Nick Carroll

## PUBLICATIONS

1. Stauer, O., **De Lora, J. A.**, Bailoni, E., Bazrafshan, A., Benk, A. S., Jahnke, K., ... López, G. P. Building a community to engineer synthetic cells and organelles from the bottom-up. *engrXiv Preprint*. 30 September 2021. <https://doi.org/10.31224/osf.io/3jw2x>. **128 Downloads**
2. Díez Pérez, T.\*, Quintana, A.\*, **De Lora, J.A.\***, Shreve, A.P., Lopez, G.P., Carroll, N.J. DNA-Binding by an Intrinsically Disordered Elastin-Like Polypeptide for Assembly of Phase Separated Nucleo-protein Coacervates. *I&EC Research*. Submitted July 2021. \*Equal Contribution
3. **De Lora, J.A.\*** and Termini, C.M.\* Synthesis and Assembly of Virtual Collaborations. *Trends in Biochemical Sciences*. 10 August 2020. \*Equal Contribution  
<https://doi.org/10.1016/j.tibs.2020.07.003>. **46 Downloads**
4. **De Lora, J.A.\***, Velasquez, J.L., Carroll, N.J., Freyer, J.P., Shreve, A.P.\* Centrifugal Generation of Droplet Based 3D Cell Cultures. *SLAS Technology*. 30 April 2020. 1-10. \*Corresponding author.  
<https://doi.org/10.1177/2472630320915837>. **244 Downloads, 1 Citation**
5. **De Lora, J. A.**, Fencel, F. A., Macias, Bandegi, A., Foudazi, R., A. D., Lopez, G. P., Shreve, A. P.\*, and Carroll, N.J.\* Oil-free acoustofluidic droplet generation for multicellular tumor spheroid culture. *ACS Applied Bio Materials*. 16 September 2019. 2(9) 4097-4105.  
<https://doi.org/10.1021/acsabm.9b00617>. **468 Downloads, 5 Citations**
6. Cicotte, K.N., Reed, J.A., Nguyen, P.A.H., **De Lora, J.A.**, Dirk, E.L.\*, Canavan, H.E.\* Optimization of electrospun poly(N-isopropyl acrylamide) mats for the rapid reversible adhesion of mammalian cells. *Biointerphases*. 2017. 12, 02C417.  
<https://doi.org/10.1116/1.4984933>. **411 Downloads, 9 Citations**

## SELECTED ABSTRACTS

1. **De Lora J.A.**, Platzman, I., and Spatz J.P. (2021): Engineering droplet-based programmable stem cell niches - synNiches. SynCell2021 Virtual Contributed Abstract at Stuttgart, Germany. May 2021.
2. **De Lora, J.A.**, Fencel, F.A., Macias-Gonzales, A.D.Y., Lopez, G.P., Shreve, A.P.\*, and Carroll, N.J.\* (2018) Droplet-based 3D Cell Culture Methods to Enable Investigations of the Chemical Tumor Microenvironment. ASCB-EMBO, Molecular Biology of the Cell Meeting Abstract, at San Diego, California, USA, December 2018.
3. **De Lora, J.A.\***, Innis, E.A., Velasquez, J., Sher, C., Freyer, J.P., Shreve, A. P.\* (2016): Comparing in vitro lung adenocarcinoma growth using 2D and 3D coculture tissue models. ISAC Cytometry Meeting Abstract, at Seattle, Washington, USA, June 2016.
4. **De Lora, J.A.\***, Kalb, D.M., Dorsey, J.E., Innis, E.A., Freyer, J.P., Shreve, A. P.\* (2015): A high-throughput method for generating uniform 3D coculture tissue models. ISAC Cytometry Meeting Abstract, at Glasgow, Scotland, June 2015.

## PATENTS

Freyer, James P., Shreve, Andrew P., and **De Lora, Jacqueline A.**: A 3D Tissue Model for Spatially Correlated Analysis of Biochemical, Physiological and Metabolic Microenvironments. Submitted as: U.S. Patent (Application No. 14/973303, Filed December 17, 2015).

## PRIZES AND AWARDS

2020	<b>Cell Mentor Rising Star: 100 Inspiring Hispanic/Latinx Scientists in America</b>
2018	<b>ASCB-MAC First Place Postdoc Level Poster Award</b>
2018	ASCB-MAC Travel Award
2017	SACNAS ASSIST Travel Grant
2016	ISAC CYTO Student Conference Travel Scholarship Award
2016	UNM Doctoral Conference Presentation Award
2015	<b>ISAC CYTO Outstanding Poster Award</b>
2015	ISAC CYTO International Conference Travel Scholarship Award
2015	UNM Doctoral Conference Presentation Award
2015	<b>Industrial Innovation Prize: UNM.STC Business Plan Competition Winner</b>
2015	First Place BSGP Student Research Day Poster Presentation
2013	ASCB Diversity Travel Scholarship award from NMSU Chemical Engineering
2013	ISAC CYTO International Conference Travel Scholarship Award
2012	<b><u>Invited Talk</u>: NM-CNTC NCI Cancer and Nanotech Alliance Annual PI Meeting Travel Scholarship</b>
2012	UNM SCAP Travel Scholarship Award
2012	SACNAS Travel Scholarship Award
2012	ISAC CYTO International Conference Travel Scholarship Award

## PROFESSIONAL DEVELOPMENT

**SYNCELL2021 | Organization Committee June 2020 - Ongoing**

**SYNCELL2021 | Invited and Contributed Talks Moderator; Poster session Moderator**

SYNCELL2020 | May 2020

ASCB 2018 | December 2018

**40th Annual Course in Flow Cytometry | June 2017 Assistant Organizer**

ISAC Cytometry 2016 International Congress | June 2016

38th Annual Course in Flow Cytometry | 2015 Lead volunteer

ISAC Cytometry 2015 International Congress | June 2015

36th Annual Course in Flow Cytometry | 2013

ASCB 2013 | December 2013

ISAC Cytometry 2013 International Congress | June 2013

ISAC Cytometry 2012 International Congress | June 2012

AVS Technical Workshop on Ultra High Vacuum Systems | May 2011

IEEE National Conference on Biomedical Imaging | April 2011

Society for the Advancement of Chicanos in Science (SACNAS) National Conference and Research Symposium | October 2010, 2011, 2012, 2017

Applied Materials Science Symposium at Harvard University | July 2010

## TEACHING, OUTREACH, AND MENTORING EXPERIENCE:

1. Teaching Assistantship for CBE 361-Biomolecular Engineering | UNM SOE Fall 2016, 2015, 2014 for Professors Andrew Shreve, Gabriel Montano, and Steve Graves

2. Teaching Assistantship for Biomedical Sciences Graduate Program BIOM501 Ethics and Statistics | UNM-SOM Fall 2012 for Professor Helen Hathaway

3. Research Education for Undergraduates (REU) Mentor | UNM Summer 2012

4. Teaching Assistantship for Chemical and Nuclear Engineering 101 | UNM Fall 2010/2011

5. Current mentoring team member of ProjectSHORT and Cientifico Latino

Outreach events to elementary school students and to the public at science museums: 8

Mentoring/supervision: 5 High school students; 7 Undergraduate students; 8 graduate students