

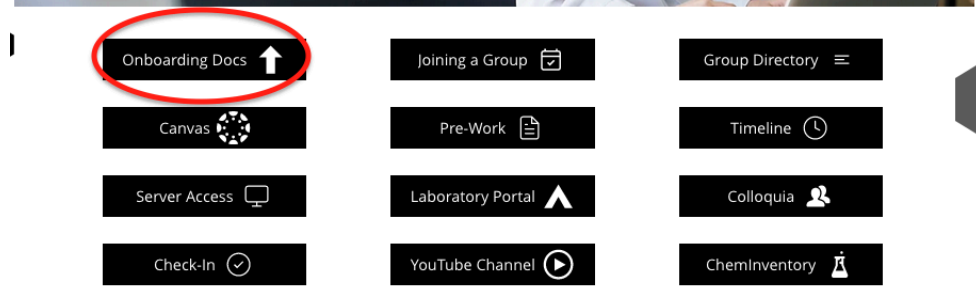
## Joining a Research Group | New Admits for the Spring of 2024

### Welcome to ASDRP 2024!

Space in many ASDRP research groups is limited, particularly groups where there are a lot of senior group members staying from the spring. All group joining requests are subject to approval by the principal investigator of the group, and space and placement in research groups is first come, first serve. Once a group is full, a principal investigator may choose to no longer accept new group members.

### Instructions for joining a research group

1. Identify your top choices of groups to work in. See the other PDF for a brief description of what each group works on. Project-specific details may or may not be publicly available depending on the PI's willingness to publicly distribute intellectual property. *Some groups have additional requirements, including potential interviews and/or minimum prerequisites.* Follow the instructions on the next page to view prerequisites and requirements per group and follow the instructions accordingly.
2. If your preferred research lab requires permission to join or an interview, please email the appropriate faculty member and CC [asdrp.admin@asdrp.org](mailto:asdrp.admin@asdrp.org). All email correspondence must CC [asdrp.admin@asdrp.org](mailto:asdrp.admin@asdrp.org) in order for group placements to be approved.
3. Log into the **Student Portal** on the ASDRP Website (Link: <https://www.asdrp.org/portal> Password: **WeAreASDRP**). This will be your centralized location for finding all that you need to know about ASDRP!
4. Click "**Onboarding Docs**" in the upper left hand corner of the Student Portal. Watch a [video tutorial on how to complete the Onboarding Docs](#) (Password: **Spring2024**)



5. Complete all parts of the Onboarding Docs. On the final page you will have an opportunity to



rank your top choice research groups. You must select eight different choices in your rankings.

## ASDRP Research Advisors & Principal Scientists | 2024

### *Prerequisites / requirements for prospective group members*

#### DEPARTMENT CHAIRS

*All three department chairs at ASDRP operate their own research groups.*

#### COMPUTER SCIENCE & ENGINEERING

**Downing, Robert** (Astrophysics, Data Science) - No prerequisites, though prior coding experience and the ability to conduct logical reasoning is a plus. Must be excited about research! Email Prof. Downing at [robert.downing@asdrp.org](mailto:robert.downing@asdrp.org) to join. **Group website:** <https://sites.google.com/asdrp.org/downing>

**For Machine Learning / Drug Discovery (Njoo-Downing collaboration)** - four openings, must be VERY fluent in Python and/or R, must be familiar with basic methods in data science. Prior experience in biophysics or in chemical biology or in machine learning is a plus. Email a resume to [robert.downing@asdrp.org](mailto:robert.downing@asdrp.org) AND [edward.njoo@asdrp.org](mailto:edward.njoo@asdrp.org) to request to join. Remote researchers OK. See Downing group website for ML-DD details.

#### BIOLOGICAL AND LIFE SCIENCES

**Wang, John** (Molecular Biology) - Email Dr. Wang at [john.wang@asdrp.org](mailto:john.wang@asdrp.org) with a CV if you are interested in joining. The Wang lab is developing precision diagnostics and molecular tools for cancer diagnostics and antibody-based therapeutics. Additionally, Dr. Wang's group uses a combination of protein engineering, cell biology, genetic engineering, and molecular biology tools to develop antibody functionalization strategies that enable preparation of therapeutics.

**Group Website:** <https://sites.google.com/asdrp.org/wang>

#### CHEMISTRY, BIOCHEMISTRY & PHYSICS

**Njoo, Edward** (Organic Chemistry) - Email Dr. Njoo at [edward.njoo@asdrp.org](mailto:edward.njoo@asdrp.org) if you are interested in joining. Five openings, preferentially taking sophomores and juniors (and exceptional freshmen) who are serious and committed to year-round research in synthetic & physical organic chemistry. Must be willing to juggle multiple projects at once and must be committed to 20+ hours of laboratory research per week. By interview only, email [njoogroup@asdrp.org](mailto:njoogroup@asdrp.org) and CC [edward.njoo@asdrp.org](mailto:edward.njoo@asdrp.org) to set up an interview. No prior research experience needed, just the willingness to learn a LOT and to work very hard who are comfortable being in a vibrant, elite, and dynamic group deeply passionate about molecular science. **Group website:** [www.njoolab.org](http://www.njoolab.org).

#### CENTER FOR INTERDISCIPLINARY RESEARCH

**Jahanikia, Sahar** (Neuroinformatics, Cognitive Sciences) - Email [sahar.jahanikia@asdrp.org](mailto:sahar.jahanikia@asdrp.org) if interested. Prior coding experience is a plus, particularly for human connectome projects. Taking individuals who are interested in cognitive sciences, neuroscience, neuroinformatics. Link to the Jahanikia Neuro Lab website @ [www.jneurolab.org](http://www.jneurolab.org).



## Faculty Research Group Directory, Spring 2024

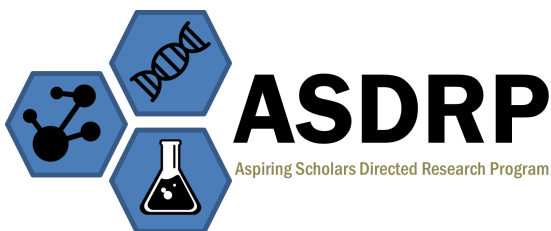
Asterisk (\*) denotes remote researchers OK.

Highlighted rows indicate Department Chair

Investigator	Department	Field	Link(s)
Adams, Connor	BIOL	Marine Biology	<a href="mailto:connor.adams@asdrp.org">connor.adams@asdrp.org</a> <a href="#">Group Website</a>
Akl, Marx	CSEN	Quantum Mechanics, Machine Learning	<a href="mailto:marx.akl@asdrp.org">marx.akl@asdrp.org</a> <a href="#">Group Website</a>
Amadi, Michael	BIOL	Biotechnology	<a href="mailto:michael.amadi@asdrp.org">michael.amadi@asdrp.org</a> <a href="#">Group Website</a>
Amer, Omar* <i>Not available Spring 2024</i>	CSEN	Civil Engineering	<a href="mailto:omar.amer@asdrp.org">omar.amer@asdrp.org</a> <a href="#">Group Website</a>
Brah, Harman*	CHEM	Biophysics	<a href="mailto:harman.brah@asdrp.org">harman.brah@asdrp.org</a> <a href="#">Group Website</a> <i>Interview required.</i>
Chen, Raymond	CHEM	Analytical Chemistry	<a href="mailto:raymond.chen@asdrp.org">raymond.chen@asdrp.org</a> <a href="#">Group Website</a>
Chen, Zane	CHEM	Biochemistry	<a href="mailto:zane.chen@asdrp.org">zane.chen@asdrp.org</a> <a href="#">Group Website</a>
Cunha, Clinton*	BIOL	Bioinformatics, Cancer Biology	<a href="mailto:clinton.cunha@asdrp.org">clinton.cunha@asdrp.org</a> <a href="#">Group Website</a>
Dani, Asmita	CSEN	Electrical Engineering	<a href="mailto:asmita.dani@asdrp.org">asmita.dani@asdrp.org</a> (on sabbatical)
DeGrendele, Chris	CSEN	Applied Physics & Mathematics	<a href="mailto:chris.degrendele@asdrp.org">chris.degrendele@asdrp.org</a> <a href="#">Group Website</a>
Downing, Robert*	CSEN	Data Science, Machine Learning	<a href="mailto:robert.downing@asdrp.org">robert.downing@asdrp.org</a> <a href="#">Group Website</a>
Gautam, Rajesh	CSEN	Machine Learning, Artificial Intelligence	<a href="mailto:rajesh.gautam@asdrp.org">rajesh.gautam@asdrp.org</a> <a href="#">Group Website</a>
Kaur, Prabhjeet	BIOL	Microbiology	<a href="mailto:prabhjeet.kaur@asdrp.org">prabhjeet.kaur@asdrp.org</a> <a href="#">Group Website</a>
Jahanikia, Sahar*	BIOL	Cognitive Science,	<a href="mailto:sahar.jahanikia@asdrp.org">sahar.jahanikia@asdrp.org</a>



		Neuroinformatics	<a href="#">Group Website</a>
<b>Kushnerov, Martin</b>	BIOL	Bioinformatics, Genetics	<a href="mailto:martin.kushnerov@asdrp.org">martin.kushnerov@asdrp.org</a> <a href="#">Group Website</a>
<b>Laurienzo, Joseph*</b>	CSEN	Applied Mathematics, Cognitive Informatics	<a href="mailto:joseph.laurienzo@asdrp.org">joseph.laurienzo@asdrp.org</a> <a href="#">Group Website</a>
<b>Lamichhane, Prabin*</b>	CSEN	Data Science	<a href="mailto:prabin.lamichhane@asdrp.org">prabin.lamichhane@asdrp.org</a> <a href="#">Group Website</a>
<b>Liu, Dennis*</b>	CSEN	Software Development	<a href="mailto:dennis.liu@asdrp.org">dennis.liu@asdrp.org</a> <a href="#">Group Website</a>
<b>Liu, Viktoriia*</b>	CSEN	Applied physics, machine learning	<a href="mailto:viktoriia.liu@asdrp.org">viktoriia.liu@asdrp.org</a> <a href="#">Group Website</a>
<b>McMahan, Larry*</b>	CSEN	Machine Learning, Quantum Mechanics	<a href="mailto:larry.mcmahan@asdrp.org">larry.mcmahan@asdrp.org</a> <a href="#">Group Website</a>
<b>Mui, Phil*</b> <i>Not available Spring 2024</i>	CSEN	Artificial Intelligence, Machine Learning	<a href="mailto:phil.mui@asdrp.org">phil.mui@asdrp.org</a> <a href="#">Group Website</a>
<b>Nteziyaremye, Valens</b> <i>Not available Spring 2024</i>	CSEN	Mechanical Engineering	<a href="mailto:valens.nteziyaremye@asdrp.org">valens.nteziyaremye@asdrp.org</a> <a href="#">Group Website</a>
<b>Njoo, Edward</b>	CHEM	Organic Chemistry, Chemical Biology	<a href="mailto:edward.njoo@asdrp.org">edward.njoo@asdrp.org</a> <a href="#">Group Website</a>
<b>Pazzi, Joey</b>	CHEM	Biomedical engineering	<a href="mailto:joey.pazzi@asdrp.org">joey.pazzi@asdrp.org</a> <a href="#">Group Website</a>
<b>Poudyal, Bharat</b>	BIOL	Biotechnology	<a href="mailto:bharat.poudyal@asdrp.org">bharat.poudyal@asdrp.org</a> <a href="#">Group Website</a>
<b>Qin, Huifang</b>	CSEN	Artificial Intelligence, Data Science	<a href="mailto:huifang.qin@asdrp.org">huifang.qin@asdrp.org</a> <a href="#">Group Website</a>
<b>Ramachandra, Vikas*</b>	CSEN	Machine Learning	<a href="mailto:vikas.ramachandra@asdrp.org">vikas.ramachandra@asdrp.org</a> <a href="#">Group Website</a>
<b>Renganathan, Gayathri</b>	CHEM	Biochemistry & Pharmacology	<a href="mailto:gayathri.renganathan@asdrp.org">gayathri.renganathan@asdrp.org</a> <a href="#">Group Website</a>
<b>Salgotra, Vasudha</b>	CHEM	Analytical	<a href="mailto:vasudha.salgotra@asdrp.org">vasudha.salgotra@asdrp.org</a> <a href="#">Group Website</a>



<b>Starostina, Nataliya</b>	CSEN	Materials Science, AI, Physics	<a href="mailto:natalya.starostina@asdrp.org">natalya.starostina@asdrp.org</a> <a href="#">Group Website</a>
<b>Subramaniam, Suresh*</b> <i>Not available Spring 2024</i>	CSEN	Data Science	<a href="mailto:suresh.subramaniam@asdrp.org">suresh.subramaniam@asdrp.org</a> <a href="#">Group Website</a>
<b>Suresh, Soumya</b> <i>Not available Spring 2024</i>	BIOL	Environmental Science	<a href="mailto:soumya.suresh@asdrp.org">soumya.suresh@asdrp.org</a> <a href="#">Group Website</a>
<b>Wang, John</b>	BIOL	Molecular Biology	<a href="mailto:john.wang@asdrp.org">john.wang@asdrp.org</a> <a href="#">Group Website</a>
<b>Yamamoto, Akira</b>	CHEM	Biomaterials Engineering	<a href="mailto:akira.yamamoto@asdrp.org">akira.yamamoto@asdrp.org</a> <a href="#">Group Website</a>
<b>Zhang, Tracy</b>	BIOL	Cancer Biology	<a href="mailto:tracy.zhang@asdrp.org">tracy.zhang@asdrp.org</a> <a href="#">Group Website</a>



## Group Descriptions

**Connor Adams** | Marine Biology & Marine Ecology

Email me at [connor.adams@asdrp.org](mailto:connor.adams@asdrp.org) if you are interested in joining the Adams Lab

The Adams lab at ASDRP works on marine organism behavior and ecophysiology and is interested in understanding the physiology and behavior of invertebrates in intertidal pool regions.

**Link to Group Website:** <https://sites.google.com/asdrp.org/adams>

**Marx Akl** | Density Functional Theory / Quantum Mechanics | [marx.akl@asdrp.org](mailto:marx.akl@asdrp.org)

Dr. Akl is a new faculty member at ASDRP.

Dr. Akl received his PhD from the Rensselaer Polytechnic Institute in Physics, and currently teaches at community colleges around the Bay Area. Dr. Akl's primary area of research is in using machine learning to identify ways to linearize density functional theory (DFT) calculations to understand electronic structure of novel nano and inorganic materials with unique physical properties.

**Link to Group Website:** <https://sites.google.com/asdrp.org/akl>

**Michael Amadi** | Synthetic Biology & Biotechnology | [michael.amadi@asdrp.org](mailto:michael.amadi@asdrp.org)

Email me at [michael.amadi@asdrp.org](mailto:michael.amadi@asdrp.org) you'd like to join the Amadi lab.

The Amadi lab works on developing biotechnology solutions for a variety of societal problems including agriculture/agritech and genomics and disease detection. Tools used include genetic engineering, metabolomics by mass spectrometry, etc.

**Link to Group Website:** <https://sites.google.com/asdrp.org/amadi>

**Omar Amer** | Civil Engineering | [omar.amer@asdrp.org](mailto:omar.amer@asdrp.org)

Email [asdrp.admin@asdrp.org](mailto:asdrp.admin@asdrp.org) if you are interested in being a part of Dr. Amer's startup research group.

Dr. Amer holds a Ph.D. from Clemson University and a Master's degree from San Diego State University. His research interests are on the sustainability of construction materials and finding beneficial uses of industrial wastes in construction. Research areas in Dr. Amer's group will include researching, testing, and developing sustainable materials for human use.

**Link to Group Website:** <https://sites.google.com/asdrp.org/amer>

**Harman Brah** | Biophysics & Computational Biochemistry | [harman.brah@asdrp.org](mailto:harman.brah@asdrp.org)

Remote researchers OK. Email first for permission to join.

The Brah group at ASDRP uses computer modeling and simulations to develop next-generation small molecule therapeutics targeting cancer, Alzheimer's disease, obesity, and more. This is accomplished through high throughput virtual screening and molecular dynamics simulations.

**Link to Group Website:** <https://sites.google.com/asdrp.org/brah>

**Raymond Chen** | Biochemistry & Analytical Chemistry | [raymond.chen@asdrp.org](mailto:raymond.chen@asdrp.org)

Do not email. Simply indicate on Transition form your intentions of joining the group.

The Chen lab at ASDRP will be working to develop bioanalytical methods primarily using high performance liquid chromatography (HPLC) and liquid chromatography - mass spectrometry (LC-MS) to probe questions in metabolomics, drug delivery, and pharmacology.



**Zane Chen** | Cancer Biochemistry, Molecular Biology | [zane.chen@asdrp.org](mailto:zane.chen@asdrp.org)

Email Dr. Chen at [zane.chen@asdrp.org](mailto:zane.chen@asdrp.org) if you are interested in joining.

*Dr. Chen received his MD, PhD from Oregon Health Sciences University where he elucidated the mechanism of carnitine acetyltransferase enzymes. At ASDRP, Dr. Chen's lab interfaces biochemistry and molecular biology to address cell signaling pathways relevant in human diseases, particularly in cancers and in metabolic disorders related to diabetes.*

**Clinton Cunha** | Bioinformatics & Cancer Biology | [clinton.cunha@asdrp.org](mailto:clinton.cunha@asdrp.org)

Must be interested in interfacing bioinformatics and cancer biology. Email [clinton.cunha@asdrp.org](mailto:clinton.cunha@asdrp.org).

*The Cunha lab is interested in applying heavy duty data analysis and bioinformatics towards understanding gene expression and regulation patterns in colorectal cancer cells as a means to informing the next questions in cancer therapeutics.*

**Link to Group Website:** <https://sites.google.com/asdrp.org/cunha>

**Chris DeGrendele** | Applied Physics | [chris.degrendele@asdrp.org](mailto:chris.degrendele@asdrp.org)

Email Mr. DeGrendele at [chris.degrendele@asdrp.org](mailto:chris.degrendele@asdrp.org) for permission to join.

*The DeGrendele lab works on developing models for fluid dynamics that help to simulate challenging physical environments. We are looking for enthusiastic theoretical physicists and those interested in the intersection of applied mathematics and applied physics!*

**Link to Group Website:** <https://sites.google.com/asdrp.org/degrendele>

**Robert Downing** | Data Science & Machine Learning | [robert.downing@asdrp.org](mailto:robert.downing@asdrp.org)

No email necessary! Just looking for folks who want to pursue research in data science and its broadest applications.

*Prof. Downing's group at ASDRP is a diverse and dynamic group of aspiring data scientists. We see data and machine learning as being central to everything from environmental analysis to neuroscience to decryption of medieval manuscripts to searching the night sky for potentially habitable exoplanets.*

**Link to Group Website:** <https://sites.google.com/asdrp.org/downing>

**Sahar Jahanikia** | Cognitive Science & Neuroinformatics | [sahar.jahanikia@asdrp.org](mailto:sahar.jahanikia@asdrp.org)

Email [sahar.jahanikia@asdrp.org](mailto:sahar.jahanikia@asdrp.org) for permission to join.

*The Jahanikia "neuro lab" at ASDRP embodies cross-disciplinary research in the fields of cognitive science, neuroimaging by fMRI, application development, bioinformatics, and neuroinformatics - using data and cognitive science to understand human behavior.*

**Link to Group Website:** [www.jneurolab.org](http://www.jneurolab.org)

**Prabhjeet Kaur** | Environmental microbiology | [prabhjeet.kaur@asdrp.org](mailto:prabhjeet.kaur@asdrp.org)

Email Professor Kaur at [prabhjeet.kaur@asdrp.org](mailto:prabhjeet.kaur@asdrp.org) if interested.

*Prof. Kaur's research group at ASDRP uses a variety of microbiological and biotechnology techniques to understand the ecological dispersion of microbiota including fungi and bacteria throughout the Bay Area.*

**Link to Group Website:** <https://sites.google.com/asdrp.org/kaur>

**Kushnerov, Martin** | Genomics | [martin.kushnerov@asdrp.org](mailto:martin.kushnerov@asdrp.org)



Email Mr. Kushnerov at [martin.kushnerov@asdrp.org](mailto:martin.kushnerov@asdrp.org) for permission to join.

The Kushnerov lab at ASDRP is a startup lab this spring and is recruiting new students interested in doing science at the interface of genetics, genomics, and bioinformatics.

**Link to Group Website:** <https://sites.google.com/asdrp.org/kushnerov>

**Joseph Laurienzo** | Applied mathematics | [joseph.laurienzo@asdrp.org](mailto:joseph.laurienzo@asdrp.org)

Email [asdrp.admin@asdrp.org](mailto:asdrp.admin@asdrp.org) if you are interested in being a part of Mr. Laurienzo's startup research group.

Mr. Laurienzo received his BS in math and physics and MS in applied math from Case Western Reserve University, along with a BA in Japanese, and has collaborated with the University of Tokyo in condensed matter physics. Joseph's research interests include the application of novel mathematical techniques in the assessment of brain activity patterns and constructing cognitive and phenomenological models, as well as game theory, and research projects under his supervision will likewise embody this interdisciplinary spirit.

**Link to Group Website:** <https://sites.google.com/asdrp.org/laurienzo>

**Dennis Liu** | Human-Computer Interaction, Machine Learning | [dennis.liu@asdrp.org](mailto:dennis.liu@asdrp.org)

Email Prof. Downing if you are interested in joining Dennis Liu's group.

Dennis Liu, a product of Georgia Tech (Master's in Machine Learning) and UC San Diego (cognitive science and computer science) with a specific interest in human-computer interactions. Mr. Liu comes to ASDRP with several years of experience from industry at IBM Quantum and at Vizio.

**Link to Group Website:** [https://sites.google.com/asdrp.org/liu\\_dennis](https://sites.google.com/asdrp.org/liu_dennis)

**Viktoriiia Liu** | Quantum Mechanics and Computer Science | [viktoriiia.liu@asdrp.org](mailto:viktoriiia.liu@asdrp.org)

Email Dr. Liu at [viktoriiia.liu@asdrp.org](mailto:viktoriiia.liu@asdrp.org) if you are interested in joining the Liu Lab.

Dr. Liu received her PhD in physical chemistry from UC Riverside. Her lab at ASDRP works on using machine learning models to identify applications of multiple regression models and applied artificial intelligence for biological and biomedical applications, particularly focused on cancer detection and pathology detection.

**Link to Group Website:** <https://sites.google.com/asdrp.org/liu>

**Larry McMahan** | Quantum Mechanics & Computer Science | [larry.mcmahan@asdrp.org](mailto:larry.mcmahan@asdrp.org)

Email Dr. McMahan at [larry.mcmahan@asdrp.org](mailto:larry.mcmahan@asdrp.org) if you are interested in joining the McMahan group.

Dr. McMahan's research group at ASDRP focuses on two main arenas of research - quantum mechanics (quantum tunneling and computing) and machine learning platforms that have predictive capabilities in understanding societal phenomena such as crime rates, COVID-19 rates, etc.

**Link to Group Website:** <https://sites.google.com/asdrp.org/mcmahan>

**Phil Mui** | Artificial Intelligence & Machine Learning | [phil.mui@asdrp.org](mailto:phil.mui@asdrp.org)

Email Dr. Mui at [phil.mui@asdrp.org](mailto:phil.mui@asdrp.org) for permission to join with a Curriculum Vitae and most recent resume.

Links to your personal GitHub would be preferable. Extensive prior coding experience is required.

\*Dr. Mui is on sabbatical this spring and is not taking new students for the Spring of 2024.

Dr. Mui's research group at ASDRP actively works on a number of areas related to the role of intrinsic biases in artificial intelligence and machine learning algorithms and their impact on society - issues such as biases intrinsic in facial recognition, occupational demographics, and news aggregators.

**Link to Group Website:** <https://sites.google.com/asdrp.org/mui>





**Valens Nteziyaremye** | Mechanical Engineering | [valens.nteziyaremye@asdrp.org](mailto:valens.nteziyaremye@asdrp.org)

*No email required*

*Dr. Nteziyaremye received his PhD and MS in Mechanical Engineering at the University of Florida, and comes to ASDRP with over a decade of academic and industrial R&D experience, most recently at Lam Research Corporation as a senior process engineer. Dr. Nteziyaremye is an expert on microfriction, and uses electron microscopy techniques and modern fabrication / characterization of surface materials to optimize new ultra low friction interfaces with application in biomedical device engineering.*

**Link to Group Website:** <https://sites.google.com/asdrp.org/nteziyaremye>

**Edward Njoo** | Organic & Medicinal Chemistry | [edward.njoo@asdrp.org](mailto:edward.njoo@asdrp.org)

*Email Dr. Njoo at [edward.njoo@asdrp.org](mailto:edward.njoo@asdrp.org) to request permission to join.*

*The Njoo group at ASDRP focuses on organic chemistry as a means of developing next-generation small molecule therapeutics, identifying strategies for natural product total syntheses, developing more efficient catalyst platforms for C-C and C-F bond formation events, and using benchtop NMR for mechanistic probing and real time reaction monitoring.*

**Link to Group Website:** [www.njoolab.org](http://www.njoolab.org)

**Joseph Pazzi** | Bioengineering | [joey.pazzi@asdrp.org](mailto:joey.pazzi@asdrp.org)

*Dr. Joseph Pazzi received his PhD in bioengineering from UC Merced, where he is currently an adjunct professor. Joey has nearly a decade of experience in industry and in academic life science R&D and is starting up his research group here at ASDRP, where students will work on developing giant unilamellar vesicles (GUV's) and lignin-based biopolymers for new applications in drug delivery and medical diagnostics*

**Link to Group Website:** <https://sites.google.com/asdrp.org/pazzi>

**Bharat Poudyal** | Biotechnology & Agronomy | [bharat.poudyal@asdrp.org](mailto:bharat.poudyal@asdrp.org)

*No need to email! Dr. Poudyal is a new faculty member at ASDRP this spring! No email required.*

*The Poudyal lab at ASDRP is a startup lab this spring and is recruiting new students interested in doing science at the interface of biotechnology, plant biology, sustainable practice, and human health.*

**Link to Group Website:** <https://sites.google.com/asdrp.org/poudyal>

**Huifang Qin** | Artificial Intelligence | [huifang.qin@asdrp.org](mailto:huifang.qin@asdrp.org)

*Dr. Qin is a new faculty member at ASDRP! Please email [asdrp.admin@asdrp.org](mailto:asdrp.admin@asdrp.org) for permission to join.*

*Dr. Qin received her PhD from UC Berkeley and has several years of experience in applied data science and machine learning models in industry. She is starting up several projects this spring and is hoping to recruit ASDRP students interested in applied machine learning.*

**Link to Group Website:** <https://sites.google.com/asdrp.org/qin>

**Vikas Ramachandra** | Data Science | [vikas.ramachandra@asdrp.org](mailto:vikas.ramachandra@asdrp.org)

*Email Dr. Ramachandra at [vikas.ramachandra@asdrp.org](mailto:vikas.ramachandra@asdrp.org) for permission to join.*

*Dr. Ramachandra is a new faculty member at ASDRP in the Computer Science & Engineering department working on data science.*

**Link to Group Website:** <https://sites.google.com/asdrp.org/ramachandra>



**Gayathri Renganathan** | Biochemistry & Chemical Biology | [gayathri.renganathan@asdrp.org](mailto:gayathri.renganathan@asdrp.org)  
*Preferably sophomores or juniors interested in biomedical science. Seniors by interview only. Ms. Renganathan's research group focuses on using biochemistry and chemical biology to design and develop systems for biomedical application, including drug delivery, pharmaceutical analysis, lipid nanoparticle synthesis, and natural product / pharmacology research.*

**Link to Group Website:** <https://sites.google.com/asdrp.org/renganathan>

**Vasudha Salgotra** | Bioanalytical Chemistry | [vasudha.salgotra@asdrp.org](mailto:vasudha.salgotra@asdrp.org)  
*Email Ms. Salgotra at [vasudha.salgotra@asdrp.org](mailto:vasudha.salgotra@asdrp.org) for permission to join. Vasudha Salgotra is a research professional with a background in analytical chemistry and pharmacy. Her lab works on validating plate-based immunoassays (ELISAs) and other bioanalytical techniques to study the binding affinity of drugs to targets, and to study the absorption, distribution, metabolism, and excretion (ADME) properties to understand the pharmacokinetics of the compounds. Additionally this lab will focus on the use of in silico modelling software, in vitro experiments in the lab, and in vivo studies in animals to study the pharmacokinetic properties of small molecules and biologics.*

**Link to Group Website:** <https://sites.google.com/asdrp.org/salgotra>

**Nataliya Starostina** | Inorganic Chemistry, Materials Engineering  
*Dr. Starostina is an expert in inorganic material, metallurgical engineering, and using electron microscopy to study nanomaterials. Dr. Starostina recently joined the faculty at ASDRP this Spring, and will be leading a group on developing next generation inorganic materials.*

**Link to Group Website:** <https://sites.google.com/asdrp.org/starostina>

**Soumya Suresh** | Environmental Science | [soumya.suresh@asdrp.org](mailto:soumya.suresh@asdrp.org)  
*Soumya is on sabbatical this year and is not taking students. Soumya's expertise as an environmental scientist ranges from using environmental DNA (eDNA) and genomics for understanding ecological systems and the impact of human activities and forest fires on Northern California forest ecology.*

**Link to Group Website:** <https://sites.google.com/asdrp.org/suresh>

**Suresh Subramaniam** | Data Science | [suresh.subramaniam@asdrp.org](mailto:suresh.subramaniam@asdrp.org)  
*Email [suresh.subramaniam@asdrp.org](mailto:suresh.subramaniam@asdrp.org) if you would like; otherwise, no email required and you may indicate on the transition form.*

*The Subramaniam group at ASDRP works on a variety of real-world applications of data science, including understanding patterns in COVID-19 spread, the housing market, image analysis and facial feature / emotion recognition platforms.*

**Link to Group Website:** <https://sites.google.com/asdrp.org/subramaniam>

**John Wang** | Molecular & Cellular Biology | [john.wang@asdrp.org](mailto:john.wang@asdrp.org)  
*Email Dr. Wang at [john.wang@asdrp.org](mailto:john.wang@asdrp.org) with a CV if you are interested in joining. The Wang lab is developing precision diagnostics and molecular tools for cancer diagnostics and antibody-based therapeutics. Additionally, Dr. Wang's group uses a combination of protein engineering, cell*



*biology, genetic engineering, and molecular biology tools to develop antibody functionalization strategies that enable preparation of therapeutics.*

**Link to Group Website:** <https://sites.google.com/asdrp.org/wang>

**Akira Yamamoto** | Biomaterials Engineering | [akira.yamamoto@asdrp.org](mailto:akira.yamamoto@asdrp.org)

*Email [akira.yamamoto@asdrp.org](mailto:akira.yamamoto@asdrp.org) with a resume / CV if you are interested in joining my lab. Must be willing to spend lots of time in the laboratory working on VERY cool bioengineering and biomaterials projects!*

*The Yamamoto group at ASDRP is involved in working on engineering biomaterials and developing bioanalytical methods for application in the life sciences. Current projects include HPLC method development for ion pair analysis, site-specific antibody modification, RNA condensation, and photocurable hyaluronic acid hydrogel materials.*

**Link to Group Website:** <https://sites.google.com/asdrp.org/yamamoto>

**Tracy Zhang** | Cancer Biology & Oncology | [tracy.zhang@asdrp.org](mailto:tracy.zhang@asdrp.org)

*Email a CV to [tracy.zhang@asdrp.org](mailto:tracy.zhang@asdrp.org) for permission to join.*

*Dr. Zhang is an experienced molecular& cellular, as well as oncology scientist with more than 10 years of experience in both industry and academia, interested in identifying and developing potent tumor targets and new drug candidates for tumor killing. Dr. Zhang has coauthored over twenty peer-reviewed research articles in cancer biology and molecular medicine.*

**Link to Group Website:** <https://sites.google.com/asdrp.org/zhang/home>