Rodolfo Aramayo, PhD

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- **Other:** **Web_Site** **Linkedin** **Zenodo** **GitHub**

EDUCATION AND TRAINING

Institution And Location	Degree/Title	Field Of Study
University of Brasília, Brasília, D.F., Brazil	BS	Molecular Biology
University of Brasília, Brasília, D.F., Brazil	MS	Molecular Biology
University of Georgia, Athens, GA, USA	PHD	Genetics
University of Wisconsin, Madison, WI, USA	Research Assistant	Genetics
University of Wisconsin, Madison, WI, USA	Assistant Researcher	Genetics
Stanford University, Palo Alto, CA, USA	Research Associate	Genetics

PROFESSIONAL SKILLS

Molecular Biology and Biochemistry

- **Advanced expertise in molecular biology techniques, including DNA, RNA, and protein extraction, purification, and characterization**: Proficient in a wide range of molecular biology protocols.

Molecular Genetics and Genome Engineering

- **Advanced expertise in molecular genetics and genome engineering of bacteria and fungi:** Extensive experience designing strategies for genome engineering and mutants acquisition of bacterial (*Escherichia coli, Bacillus subtilis*), fungal (*Aspergillus nidulans, Neurospora crassa, and Saccharomyces cerevisiae*) cells.

Bioinformatics and Genomics

- **Expert in the interpretation and use of Genomic, Epigenomic, Transcriptomic, and Proteomic Data**: Proficient in analyzing diverse omics data for research and practical applications.
- **Expertise in Human, Fungal, and Bacterial Genetics and Genomics**: Extensive knowledge in genetic analysis across multiple organisms.
- **Expert in Bioinformatics Pipeline Development**: Skilled in creating efficient pipelines for high-throughput data processing.
- **Expert in Next-Generation DNA and RNA Sequencing (NGS) and data analysis**: Experienced with technologies such as Illumina, Pacific Biosciences, and Ion Torrent.
- **Expert in Genome and Transcriptome Assembly and Annotation**: Comprehensive experience in assembling and annotating genetic data.
- **Advanced knowledge in Comparative Genomics, Proteomics, and Metagenomics**: In-depth understanding of comparing genomes and analyzing proteomics and metagenomics data.
- **Expert in developing advanced algorithms for processing DNA, RNA, and protein data**: Skilled in creating sophisticated computational algorithms.
- **Expert in integrating DNA, RNA, and protein data into Machine Learning (ML), and Artificial Intelligence (AI) frameworks**: Proficient in applying machine learning and AI to biological data.

Programming and Technical Skills

- **Expert in setting up and deploying computer systems, ensuring they are optimized for high-performance tasks.** My extensive experience with computers and supercomputers includes not only their operation but also the creation and execution of scripts using the Slurm job scheduling and management system. This expertise allows me to leverage

supercomputing power effectively for complex computational tasks and large-scale data analysis.
- **Proficient in Python (e.g., Pandas), R, Perl, C/C++, and UNIX platforms using Linux and Bash/Shell**: Strong programming skills across multiple languages and platforms.
- **Expert in the use of R for bioinformatics analysis, data display, and statistical analysis**: Extensive experience with R for comprehensive bioinformatics and statistical tasks.
- **Skilled in connecting bioinformatics solutions (e.g., Galaxy) to SQL and PostgreSQL databases**: Proficient in integrating bioinformatics tools with database systems.
- **Expert in the deployment and use of Git/GitLab and GitHub for version control and collaboration**: Highly experienced in using version control systems.
- **Expert in deploying and using Jupyter Lab for comprehensive data analysis and visualization**: Proficient in utilizing Jupyter Lab for interactive analysis.
- **Expert in using Galaxy for genomic data analysis and visualization**: Skilled in leveraging Galaxy for research.
- **Expert in deploying and compiling advanced bioinformatics packages and their dependencies across diverse computing platforms, including cloud-based environments**: Adept at managing bioinformatics software.

Industry and Leadership Skills
- **Experienced industry consultant known for strategic thinking and a results-oriented approach**: Recognized for providing strategic insights in industry settings.
- **Demonstrated leadership experience, having supervised research projects for numerous postdoctoral, graduate, and undergraduate students**: Proven ability to lead and mentor researchers.
- **Strong analytical and problem-solving skills with effective communication and organizational abilities adaptable to diverse audiences**: Excellent at analyzing complex problems and organizing tasks.
- **Strong interdisciplinary mind with a knack for simplifying complex concepts and applying engineering mindsets to molecular techniques**: Talented at breaking down complex ideas and applying engineering principles.

TEACHING SKILLS
Courses Developed:
- **Computational Genomics (Undergraduate Level) and Genomics (Graduate Level).** The Computational Genomics and Genomics courses equip students with fundamental skills in genome data acquisition, manipulation, and analysis, utilizing computational tools like Galaxy and CyVerse, to prepare them for the Genomics Revolution and contemporary biological research.
- **Digital Biology (Graduate Level).** Digital Biology is an introductory command-line-driven course aimed at preparing students for the paradigm shift in biology brought about by Genomics and Computational Genomics. It focuses on developing terminal-based skills for data manipulation, version control, scripting, and utilizing computational tools for mapping and assembly of transcriptome data, using resources like Cyverse and TAMU Supercomputer Grace.
- **Advanced Eukaryotic Genetics and Epigenetics (Graduate Level).** This advanced graduate level course delves into genetics and epigenetics topics related to RNA silencing, covering genetic approaches in both small and large eukaryotic organisms, including fungi and mice. It explores non-mendelian genetic segregation and the biology of non-coding RNAs, exposing students to current molecular and genetic literature. By the course's end, students are expected to possess advanced knowledge of genetic and epigenetic mechanisms in key model organisms and relevant epigenetic phenomena.

- **Information in Biology (Graduate and Undergraduate Levels).** This course aimed to tackle the interdisciplinary nature of information transfer in biology, exploring the laws and processes governing it. The hypothesis posited was that similar principles observed in other systems, such as large corporations, also apply to unicellular organisms like *Escherichia coli*, and vice versa. The ultimate goal was to translate these concepts into the development of software or hardware with properties of "evolvability."
- **Courses Taught:** Cellular and Molecular Biology, Fundamentals of Microbiology, and Bacterial Genetics

EMPLOYMENT

- **Associate Professor.**
  Department of Biology, College of Arts and Sciences.
  Texas A&M University, College Station, TX, USA
- **Assistant Professor.**
  Department of Biology, College of Science.
  Texas A&M University, College Station, TX, USA
- **Basic Life Science Research Associate.**
  Department of Life Sciences.
  Stanford University, Palo Alto, CA, USA
- **Assistant Researcher.**
  Department of Biomolecular Chemistry.
  University of Wisconsin, Madison, WI, USA
- **Research Assistant.**
  Department of Biomolecular Chemistry.
  University of Wisconsin, Madison, WI, USA
- **Researcher II.**
  Division of Genetic Engineering.
  National Center for Genetic Resources and Biotechnology (CENARGEN), EMBRAPA.
  Brasilia, D.F., Brazil

SCIENTIFIC APPOINTMENTS

- **Editor. PeerJ, The Journal of Life & Environmental Sciences.**
  San Diego, CA, USA
- **Section Editor – Genetics and Genomics. PLoS ONE, Public Library of Science One.**
  San Francisco, CA, USA
- **Editor. The International Journal of Biological Sciences.**
  BiolSci Editorial. P.O. Box 19617. Toronto M4W 3T9 Canada
- **Editor. Fungal Genetics Newsletter. Fungal Genetics Stock Center.**
  Department of Microbiology. University of Kansas Medical Center.
  Kansas City, Kansas 66160-7420 USA
- **Editor. The Open Mycology Journal. Bentham Open**

INDUSTRIAL CONSULTING EXPERIENCE

- **Member Advisory Board, F2G, Ltd., Manchester, UK**
  Area(s) of Expertise: Genetics and Genomics
- **Genencor, Palo Alto, CA, USA**
  Area(s) of Expertise: Genetics and Genomics
- **Schering-Plough Research Institute, Kenilworth, NJ, USA**
  Area(s) of Expertise: Genetics and Genomics
- **Scriptgen Pharmaceuticals, Walthan, MA, USA**
  Area(s) of Expertise: Genetics and Genomics

GOVERNMENT CONSULTING EXPERIENCE

- **National Center for Genetic Resources and Biotechnology (CENARGEN).**
  EMBRAPA. Brasília, D. F., Brazil
  Area(s) of Expertise:
  Development of Software for the analysis of nucleic acids and proteins
  Development of Optimization Algorithms applied to Biotechnology and Agriculture
  Development of laboratory automation applied to Biotechnology

LANGUAGES

- **Spanish: Advanced**
- **Portuguese: Advanced**

PEER-REVIEWED PUBLICATIONS

1. White B, Aramayo R. Identification and Characterization of Reciprocal Amino-Acids Residues Substitutions. In preparation. 2024.
2. Ramirez P, MH M, Aramayo R, Mateos M. Diverse toxin repertoire but limited metabolic capacities inferred from the draft genome assemblies of three Spiroplasma (Citri clade) strains associated with Drosophila. bioRxiv. 2024:2024.09.23.613922v1. doi: 10.1101/2024.09.23.613922.
3. Bennett CJ, Aramayo R. A Re-Analysis of an Existing Drosophila melanogaster Dataset Reveals a New Set of Genes Involved in Post-Mating Response. bioRxiv. 2024:2024.04.10.588867. doi: 10.1101/2024.04.10.588867.
4. Aramayo R. Evaluating the impact of sequence duplications on the measurement of transcriptional profiling in the Human genome. In Preparation. 2024.
5. Aramayo R, Nan B. De Novo Assembly and Annotation of the Complete Genome Sequence of Myxococcus xanthus DZ2. Microbiol Resour Announc. 2022;11(5):e0107421. Epub 20220406. doi: 10.1128/mra.01074-21. PubMed PMID: 35384715; PMCID: PMC9119067.
6. Gerth M, Martinez-Montoya H, Ramirez P, Masson F, Griffin JS, Aramayo R, Siozios S, Lemaitre B, Mateos M, Hurst GDD. Rapid molecular evolution of Spiroplasma symbionts of Drosophila. Microb Genom. 2021;7(2). doi: 10.1099/mgen.0.000503. PubMed PMID: 33591248; PMCID: PMC8208695.
7. Maitra N, He C, Blank HM, Tsuchiya M, Schilling B, Kaeberlein M, Aramayo R, Kennedy BK, Polymenis M. Translational control of methionine and serine metabolic pathways underpin the paralog-specific phenotypes of Rpl22 ribosomal protein mutants in cell division and replicative longevity. bioRxiv. 2020.
8. Maitra N, He C, Blank HM, Tsuchiya M, Schilling B, Kaeberlein M, Aramayo R, Kennedy BK, Polymenis M. Translational control of one-carbon metabolism underpins ribosomal protein phenotypes in cell division and longevity. Elife. 2020;9:e53127. Epub 20200520. doi: 10.7554/eLife.53127. PubMed PMID: 32432546; PMCID: PMC7263821.
9. Mateos M, Silva NO, Ramirez P, Higareda-Alvear VM, Aramayo R, Erickson JW. Effect of heritable symbionts on maternally-derived embryo transcripts. Sci Rep. 2019;9(1):8847. Epub 20190620. doi: 10.1038/s41598-019-45371-0. PubMed PMID: 31222094; PMCID: PMC6586653.
10. Stavrianakou M, Perez R, Wu C, Sachs MS, Aramayo R, Harlow M. Draft de novo transcriptome assembly and proteome characterization of the electric lobe of Tetronarce californica: a molecular tool for the study of cholinergic neurotransmission in the electric organ. BMC Genomics. 2017;18(1):611. Epub 20170814. doi: 10.1186/s12864-017-3890-4. PubMed PMID: 28806931; PMCID: PMC5557070.
11. Li H, Wu C, Aramayo R, Sachs MS, Harlow ML. Synaptic vesicles isolated from the electric organ of Torpedo californica and from the central nervous system of Mus musculus contain small ribonucleic acids (sRNAs). Genom Data. 2017;12:52-3. Epub 20170308. doi: 10.1016/j.gdata.2017.02.015. PubMed PMID: 28367405; PMCID: PMC5361766.

12. Clanton RM, Wu G, Akabani G, Aramayo R. Control of seizures by ketogenic diet-induced modulation of metabolic pathways. Amino Acids. 2017;49(1):1-20. Epub 20160928. doi: 10.1007/s00726-016-2336-7. PubMed PMID: 27683025.
13. Blank HM, Perez R, He C, Maitra N, Metz R, Hill J, Lin Y, Johnson CD, Bankaitis VA, Kennedy BK, Aramayo R, Polymenis M. Translational control of lipogenic enzymes in the cell cycle of synchronous, growing yeast cells. EMBO J. 2017;36(4):487-502. Epub 20170105. doi: 10.15252/embj.201695050. PubMed PMID: 28057705; PMCID: PMC5694946.
14. Aramayo R, Polymenis M. Ribosome profiling the cell cycle: lessons and challenges. Curr Genet. 2017;63(6):959-64. Epub 20170427. doi: 10.1007/s00294-017-0698-3. PubMed PMID: 28451847; PMCID: PMC5790165.
15. Sauceda DJ AR, Youssef S, Dima A, chaudhary N, Karaman I, Perez R, Aramayo R., editor. Data and Tools for Materials Discovery and Design. Data and Tools for Materials Discovery and Design Materials Science & Technology 2015; 2015 October 4; Columbus, OH, USA Columbus, OH: Conference Tools for Materials Science & Technology 2015; c2015; 2015.
16. Polymenis M, Aramayo R. Translate to divide: small es, Cyrillicontrol of the cell cycle by protein synthesis. Microb Cell. 2015;2(4):94-104. Epub 20150320. doi: 10.15698/mic2015.04.198. PubMed PMID: 28357283; PMCID: PMC5348972.
17. Li H, Wu C, Aramayo R, Sachs MS, Harlow ML. Synaptic vesicles contain small ribonucleic acids (sRNAs) including transfer RNA fragments (trfRNA) and microRNAs (miRNA). Sci Rep. 2015;5(1):14918. Epub 20151008. doi: 10.1038/srep14918. PubMed PMID: 26446566; PMCID: PMC4597359.
18. Ilori MO, Picardal FW, Aramayo R, Adebusoye SA, Obayori OS, Benedik MJ. Catabolic plasmid specifying polychlorinated biphenyl degradation in Cupriavidus sp. strain SK-4: mobilization and expression in a pseudomonad. J Basic Microbiol. 2015;55(3):338-45. Epub 20130621. doi: 10.1002/jobm.201200807. PubMed PMID: 23787897.
19. Aramayo R, Selker EU. Neurospora crassa, a model system for epigenetics research. Cold Spring Harb Perspect Biol. 2013;5(10):a017921. Epub 20131001. doi: 10.1101/cshperspect.a017921. PubMed PMID: 24086046; PMCID: PMC3783048.
20. Wajid B AR, Serpedin E., editor. Exploring Minimum Description Length and Probabilistic Distributions of the Reference Sequences for Comparative Assembly of Genomes. In: Cristea P, editor Proceedings of the International Conference International Conference on Genomic Signal Processing; 2011.
21. Lee DW, Millimaki R, Aramayo R. QIP, a component of the vegetative RNA silencing pathway, is essential for meiosis and suppresses meiotic silencing in Neurospora crassa. Genetics. 2010;186(1):127-33.
22. Borkovich K, Ebbole DJ. Cellular and molecular biology of filamentous fungi. American Society for Microbiology Press; 2010.
23. Aramayo R, Pratt RJ. Meiotic trans□Sensing and Silencing in Neurospora. Cellular and Molecular Biology of Filamentous Fungi. 2010:132-44.
24. Lee DW, Freitag M, Selker EU, Aramayo R. A cytosine methyltransferase homologue is essential for sexual development in Aspergillus nidulans. PloS one. 2008;3(6):e2531.
25. Hu JC, Aramayo R, Bolser D, Conway T, Elsik CG, Gribskov M, Kelder T, Kihara D, Knight TF, Jr., Pico AR, Siegele DA, Wanner BL, Welch RD. The emerging world of wikis. Science. 2008;320(5881):1289-90. doi: 10.1126/science.320.5881.1289b. PubMed PMID: 18535227.
26. Ng DW, Wang T, Chandrasekharan MB, Aramayo R, Kertbundit S, Hall TC. Plant SET domain-containing proteins: structure, function and regulation. Biochim Biophys Acta. 2007;1769(5-6):316-29. Epub 20070412. doi: 10.1016/j.bbaexp.2007.04.003. PubMed PMID: 17512990; PMCID: PMC2794661.
27. Kelly WG, Aramayo R. Meiotic silencing and the epigenetics of sex. Chromosome Res. 2007;15(5):633-51. doi: 10.1007/s10577-007-1143-0. PubMed PMID: 17674151; PMCID: PMC4090689.

28. Pratt RJ, Lee DW, Aramayo R. DNA methylation affects meiotic trans-sensing, not meiotic silencing, in Neurospora. Genetics. 2004;168(4):1925-35.
29. Lee DW, Seong KY, Pratt RJ, Baker K, Aramayo R. Properties of unpaired DNA required for efficient silencing in Neurospora crassa. Genetics. 2004;167(1):131-50. doi: 10.1534/genetics.167.1.131. PubMed PMID: 15166142; PMCID: PMC1470857.
30. Freitag M, Lee DW, Kothe GO, Pratt RJ, Aramayo R, Selker EU. DNA methylation is independent of RNA interference in Neurospora. Science. 2004;304(5679):1939-.
31. Borkovich KA, Alex LA, Yarden O, Freitag M, Turner GE, Read ND, Seiler S, Bell-Pedersen D, Paietta J, Plesofsky N, Plamann M, Goodrich-Tanrikulu M, Schulte U, Mannhaupt G, Nargang FE, Radford A, Selitrennikoff C, Galagan JE, Dunlap JC, Loros JJ, Catcheside D, Inoue H, Aramayo R, Polymenis M, Selker EU, Sachs MS, Marzluf GA, Paulsen I, Davis R, Ebbole DJ, Zelter A, Kalkman ER, O'Rourke R, Bowring F, Yeadon J, Ishii C, Suzuki K, Sakai W, Pratt R. Lessons from the genome sequence of Neurospora crassa: tracing the path from genomic blueprint to multicellular organism. Microbiol Mol Biol Rev. 2004;68(1):1-108. doi: 10.1128/MMBR.68.1.1-108.2004. PubMed PMID: 15007097; PMCID: PMC362109.
32. Bogomolnaya LM, Pathak R, Guo J, Cham R, Aramayo R, Polymenis M. Hym1p affects cell cycle progression in Saccharomyces cerevisiae. Curr Genet. 2004;46(4):183-92. Epub 20040910. doi: 10.1007/s00294-004-0527-3. PubMed PMID: 15365764.
33. Lee DW, Pratt RJ, McLaughlin M, Aramayo R. An argonaute-like protein is required for meiotic silencing. Genetics. 2003;164(2):821.
34. Lee DW, Haag JR, Aramayo R. Construction of strains for rapid homokaryon purification after integration of constructs at the histidine-3 (his-3) locus of Neurospora crassa. Current genetics. 2003;43(1):17-23.
35. Kutil BL, Seong K-Y, Aramayo R. Unpaired genes do not silence their paired neighbors. Current genetics. 2003;43(6):425-32.
36. JR H, R A. Construction of a his-3 integration vector capable of performing GATEWAY™ recombinational cloning for high-throughput analysis of Neurospora crassa. Fungal Genetics Newsletter. 2003;50:6-8.
37. Han BK, Aramayo R, Polymenis M. The G1 cyclin Cln3p controls vacuolar biogenesis in Saccharomyces cerevisiae. Genetics. 2003;165(2):467-76. doi: 10.1093/genetics/165.2.467. PubMed PMID: 14573462; PMCID: PMC1462773.
38. Haag JR, Lee DW, Aramayo R. A GATEWAY™ Destination Vector For High-Throughput Construction of Neurospora crassa histidine-3 Gene Replacement Plasmids. Fungal Genetics Newsletter. 2003:6-8.
39. Galagan JE, Calvo SE, Borkovich KA, Selker EU, Read ND, Jaffe D, FitzHugh W, Ma LJ, Smirnov S, Purcell S, Rehman B, Elkins T, Engels R, Wang S, Nielsen CB, Butler J, Endrizzi M, Qui D, Ianakiev P, Bell-Pedersen D, Nelson MA, Werner-Washburne M, Selitrennikoff CP, Kinsey JA, Braun EL, Zelter A, Schulte U, Kothe GO, Jedd G, Mewes W, Staben C, Marcotte E, Greenberg D, Roy A, Foley K, Naylor J, Stange-Thomann N, Barrett R, Gnerre S, Kamal M, Kamvysselis M, Mauceli E, Bielke C, Rudd S, Frishman D, Krystofova S, Rasmussen C, Metzenberg RL, Perkins DD, Kroken S, Cogoni C, Macino G, Catcheside D, Li W, Pratt RJ, Osmani SA, DeSouza CP, Glass L, Orbach MJ, Berglund JA, Voelker R, Yarden O, Plamann M, Seiler S, Dunlap J, Radford A, Aramayo R, Natvig DO, Alex LA, Mannhaupt G, Ebbole DJ, Freitag M, Paulsen I, Sachs MS, Lander ES, Nusbaum C, Birren B. The genome sequence of the filamentous fungus Neurospora crassa. Nature. 2003;422(6934):859-68. doi: 10.1038/nature01554. PubMed PMID: 12712197.
40. Pratt RJ, Aramayo R. Improving the efficiency of gene replacements in Neurospora crassa: a first step towards a large-scale functional genomics project. Fungal Genet Biol. 2002;37(1):56-71. doi: 10.1016/s1087-1845(02)00032-4. PubMed PMID: 12223190.
41. DiDomenico B, Aramayo R. Pathogenesis In Fungi. Encyclopedia of Molecular Biology. 2002.
42. DiDomenico B, Aramayo R. Circadian Rhythms and Clocks in Fungi. Encyclopedia of Molecular Biology. 2002.
43. DiDomenico B, Aramayo R. Mating In Fungi. Encyclopedia of Molecular Biology. 2002.

44. DiDomenico B, Aramayo R. Filamentous Fungi. Encyclopedia of Molecular Biology. 2002(10.1002/047120918X.emb0564).
45. Chang P YJ, Bhatnagar D, Cotty P, Keller N, Aramayo R, Roe B, Kupfer D, Cleveland T. Aspergillus EST Databases Provide Insights into Aflatoxin Biosynthesis Research. Mycopathologia. 2002;155(1-2).
46. Aramayo R, Bennett J. The importance of fungal genomics. AMER SOC MICROBIOLOGY 1325 MASSACHUSETTS AVENUE, NW, WASHINGTON, DC 20005-4171; 1997. p. 176-7.
47. Peleg Y, Aramayo R, Kang S, Hall JG, Metzenberg RL. NUC-2, a component of the phosphate-regulated signal transduction pathway inNeurospora crassa, is an ankyrin repeat protein. Molecular and General Genetics MGG. 1996;252(6):709-16.
48. Peleg Y, Aramayo R, Bleeker A, Metzenberg R. A gas emitted by Neurospora crassa. Fungal Genetics Reports. 1996;43(1):41-2.
49. Peleg Y, Addison R, Aramayo R, Metzenberg RL. Translocation of Neurospora crassa Transcription Factor NUC-1 into the Nucleus Is Induced by Phosphorus Limitation. Fungal Genetics and Biology. 1996;20(3):185-91.
50. Bruno KS, Aramayo R, Minke PF, Metzenberg RL, Plamann M. Loss of growth polarity and mislocalization of septa in a Neurospora mutant altered in the regulatory subunit of cAMP-dependent protein kinase. EMBO J. 1996;15(21):5772-82. PubMed PMID: 8918454; PMCID: PMC452324.
51. Aramayo R, Peleg Y, Addison R, Metzenberg R. Asm-1+, a Neurospora crassa gene related to transcriptional regulators of fungal development. Genetics. 1996;144(3):991-1003. doi: 10.1093/genetics/144.3.991. PubMed PMID: 8913744; PMCID: PMC1207638.
52. Aramayo R, Metzenberg RL. Meiotic transvection in fungi. Cell. 1996;86(1):103-13. doi: 10.1016/s0092-8674(00)80081-1. PubMed PMID: 8689677.
53. Aramayo R, Metzenberg R. Gene replacements at the his-3 locus of Neurospora crassa. Fungal Genetics Reports. 1996;43(5):9-13.
54. Aramayo R. Construction of a Cosmid library of Neurospora crassa DNA sequences from a Mating Type a strain. Catalogue of Strains Supplement of the Fungal Genetics Newsletter. 1996;43:5.
55. Aramayo R, Timberlake WE. The Aspergillus nidulans yA gene is regulated by abaA. The EMBO Journal. 1993;12(5):2039-48.
56. Aramayo R, Timberlake WE. Construction of a 24-h developmental cDNA library from Aspergillus nidulans. Fungal Genetics Newsletter. 1990;40(11):103.
57. Aramayo R, Timberlake WE. Sequence and molecular structure of the Aspergillus nidulans yA (laccase I) gene. Nucleic Acids Res. 1990;18(11):3415. doi: 10.1093/nar/18.11.3415. PubMed PMID: 2192364; PMCID: PMC330968.
58. Aramayo R, Adams T, Timberlake W. A large cluster of highly expressed genes is dispensable for growth and development in Aspergillus nidulans. Genetics. 1989;122(1):65-71.
59. de Castro LL, Z. Aramayo, R. Sampaio, M. Gander, E. Evidence for a precursor molecule of Brazil nut 2S seed proteins from biosynthesis and cDNA analysis. Molecular and General Genetics MGG. 1987;206(02):338-43.
60. Aramayo R CL. Isolation and characterization of a peptide from Bacillus subtilis (Ehrenberg) Cohn, T41, with antibiotic activity against phytopathogenic fungi. Fitopatología Brasileira. 1986;11.

ELECTRONIC PUBLICATIONS

1. Aramayo R. Fasta_GFF3_Equalizer_Bash. In: https://doi.org/10.5281/zenodo.11396812, editor. Zenodo. v1.0.0 ed. Zenodo (CERN Data Centre & Invenio): CERN Data Centre & InvenioRDM; 2024.
2. Aramayo R. Assessing the Influence of Sequence Duplications and Genome Annotations on Transcriptional Profiling Measurements. Zenodo (CERN Data Centre & Invenio): CERN Data Centre & InvenioRDM; 2024.
3. Aramayo R. Busco_Plot. In: https://doi.org/10.5281/zenodo.10945685, editor. Zenodo. v1.0.0 ed. Zenodo (CERN Data Centre & Invenio): CERN Data Centre & InvenioRDM; 2024.

4. Aramayo R. Fasta_Seq_Prepare_Bash. In: https://zenodo.org/doi/10.5281/zenodo.10905863, editor. Zenodo. v1.0.0 ed. Zenodo (CERN Data Centre & Invenio): CERN Data Centre & InvenioRDM; 2024.
5. Aramayo R. Fasta_Seq_Plot_Bash. In: https://zenodo.org/doi/10.5281/zenodo.10892498, editor. Zenodo. v1.0.2 ed. Zenodo (CERN Data Centre & Invenio): CERN Data Centre & InvenioRDM; 2024.
6. Aramayo R. PepStats_Tables_Python. In: https://zenodo.org/doi/10.5281/zenodo.10889791, editor. Zenodo. v1.0.0 ed. Zenodo (CERN Data Centre & Invenio): CERN Data Centre & InvenioRDM; 2024.
7. Aramayo R. PepStats_Tables_Bash. In: https://zenodo.org/doi/10.5281/zenodo.10888521, editor. Zenodo. v1.0.0 ed. Zenodo (CERN Data Centre & Invenio): CERN Data Centre & InvenioRDM; 2024.
8. Gallucci JL, Aramayo R. Do Public Databases Need Higher Standards for Next-Generation Data Submissions? In: https://zenodo.org/doi/10.5281/zenodo.7943044, editor. Zenodo. DOI: 10.5281/zenodo.7943045 ed. Zenodo (CERN Data Centre & Invenio): CERN Data Centre & InvenioRDM; 2023.
9. Aramayo R. Computational_Genomics. In: https://zenodo.org/doi/10.5281/zenodo.6625427, editor. Zenodo. v2023-1.0.0 ed. Zenodo (CERN Data Centre & Invenio): CERN Data Centre & InvenioRDM; 2023.
10. Aramayo R. Compara_lists. In: https://zenodo.org/doi/10.5281/zenodo.6582472, editor. Zenodo. v1.0.1 ed. Zenodo (CERN Data Centre & Invenio): CERN Data Centre & InvenioRDM; 2022.
11. Aramayo R. Bioinformatics_Fall_2021. In: https://zenodo.org/doi/10.5281/zenodo.6618284, editor. Zenodo. v2021-1.0.2 ed. Zenodo (CERN Data Centre & Invenio): CERN Data Centre & InvenioRDM; 2022.
12. Aramayo R. Computational_Genomics. In: https://doi.org/10.5281/zenodo.6628964, editor. Zenodo. v2023-1.0.2 ed. Zenodo (CERN Data Centre & Invenio): CERN Data Centre & InvenioRDM; 2022.
13. Aramayo R. Teaching Computational Genomics: A Tale of Tables and Tests. In: https://zenodo.org/doi/10.5281/zenodo.6634706, editor. Zenodo. v1 ed. Zenodo (CERN Data Centre & Invenio): CERN Data Centre & InvenioRDM; 2022.
14. Aramayo R. A Re-Analysis of an Existing Drosophila melanogaster Dataset Reveals a New Set of Genes Involved in Post-Mating Response. In: https://zenodo.org/doi/10.5281/zenodo.6685976, editor. Zenodo. v2022-09-06 ed. Zenodo (CERN Data Centre & Invenio): CERN Data Centre & InvenioRDM; 2022.
15. Aramayo R. Digital_Biology. In: https://zenodo.org/doi/10.5281/zenodo.6626235, editor. Zenodo. v2022-1.0.0 ed. Zenodo (CERN Data Centre & Invenio): CERN Data Centre & InvenioRDM; 2022.
16. Aramayo R. Myxococcus xanthus DZ2 Genome Assembly. In: https://zenodo.org/doi/10.5281/zenodo.6359693, editor. Zenodo. v1.0 ed. Zenodo (CERN Data Centre & Invenio): CERN Data Centre & InvenioRDM; 2022.

FUNDING

1. Aramayo R. Digital Biology - BIO210035. Texas A&M University: Advanced Cyberinfrastructure Coordination Ecosystem: Services & Support (ACCESS) - National Science Foundation (NSF); 2024.
2. Aramayo R. Digital Biology - BIO210035. Texas A&M University: Advanced Cyberinfrastructure Coordination Ecosystem: Services & Support (ACCESS) - National Science Foundation (NSF); 2023.
3. Aramayo R, Thakar H. Type I - An Exploration on the Authenticity of the Ancient Triactyl Peruvian Mummies Using Radiocarbon Dating and Potential Genetic Characterization. Texas A&M University: Seed Grant Program for Promoting Research Collaborations (College of Liberal Arts, College of Science, and College of Geosciences); 2022.

4. Aramayo R. Digital Biology - BIO210035. Texas A&M University: Advanced Cyberinfrastructure Coordination Ecosystem: Services & Support (ACCESS) - National Science Foundation (NSF); 2022.
5. Aramayo R. Digital Biology - BIO210035. Texas A&M University: The Extreme Science and Engineering Discovery Environment (XSEDE) - National Science Foundation (NSF); 2021.
6. Aramayo R, Smith L. Drug Use and Abuse: Defining How Cocaine Affects the Addition of Wild-Type and Fragile X Mental Retardation-1 Mutants Texas A&M University: Texas A&M University. College of Sciences (COS) FY19 - Strategic Transformative Research Program 2019.
7. Posada JR, Aramayo R, Medina R. Characterizing The RNAs And DNAs Populations In Eggs As Tools To Assess Honey Bee Queen Fertility. Texas A&M University: T3 – Texas A&M Triads for Transformation; 2018.
8. Polymenis M, Aramayo R, Kennedy B. Coupling of Protein Synthesis with Cell Division. Texas A&M University: R01 GM123139-01, National Institutes of Health; 2017.
9. Aramayo R. Computational Detection of Novel Structural Variants in Cancer Genomes. Texas A&M University: dbGaP: 18340, National Institutes of Health - NCBI; 2017.
10. Aramayo R. Molecular Structure of the Monoamine Oxidase A (MAOA) Gene In Patients Diagnosed with Antisocial Personality Disorder. Texas A&M University: dbGaP: 18414, National Institutes of Health - NCBI; 2017.
11. Aramayo R. Computational Detection of Structural Variants Present in Standard Somatic Reference and Cancer Genomes. Texas A&M University: dbGap: 19769, National Institutes of Health - NCBI; 2017.
12. Aramayo R, Arroyave R, Gutierrez-Osuna R. Development of “Big Data” Scientific Workflow Management Tools for the Materials Genome Initiative: Materials Galaxy. Texas A&M University: Interdisciplinary Seed Grants in Big Data program of the Texas A&M Engineering Experiment Station and the Dwight Look College of Engineering in partnership with Texas A&M University Division of Research; 2014.
13. Aramayo R, Arroyave R. Materials Science Galaxy: A Web-based Materials Scientific Workflow Management System. Texas A&M University: Department of Materials Sciences. Texas A&M University; 2014.
14. Aramayo R. Advancing Big Data in Science. Texas A&M University: Texas A&M University: 230082, VPR Seed Grant; 2014.
15. Aramayo R. The Aggie Undergraduate Genomics Corps (AUGC): A catalytic concept for advancing undergraduate biological education at Texas A&M. Texas A&M University: Texas A&M University: 246049, Tier One Program (TOP) 2012.
16. Aramayo R. Genetic and Molecular Study of Meiotic Trans-sensing and Meiotic Silencing. Texas A&M University: RGM058770, National Institutes of Health; 1999.

ONLINE PROFESSIONAL PROFILES

- **NCBI: My Bibliography**
- **ORCID**

PROFESSIONAL MEMBERSHIPS (PAST AND PRESENT)

- **Member: Genomics Education Alliance**
- **Member: Genome in a Bottle Consortium**
- **Member: Free Software Foundation**
- **Member: Electronic Frontier Foundation**
- **Member: AAAs**
- **Member: ASHG**