Research Data Management

Data Archives and Curation Services

An inherent principle of publication is that others should be able to replicate and build upon the authors' published claims. Therefore, a condition of publication in a Nature journal is that authors are required to make materials, data and associated protocols promptly available to readers without undue qualifications. Any restrictions on the availability of materials or information must be disclosed to the editors at the time of submission. Any restrictions must also be disclosed in the submitted manuscript, including details of how readers can obtain materials and information.

 Nature's data accessibility policy (http://www.nature.com/authors/policies/availability.html)

Sharing your data via the UK Data Archive ensures that your data will be professionally curated, will be easily accessible to users now and in the future and increases the impact and visibility of your own research.

- UK Data Archive: Why Deposit?(http://www.data-archive.ac.uk/deposit/why)



Benefits

Benefits to the Researcher

- Promote and credit research that created the data
- Enhance visibility and impact of your research
- Permanent citation link to your research data
- Long term preservation
- Monitor usage and impact (coming soon)



Benefits

Benefits to your Profession

- Facilitate research beyond the scope of the original research
- Provide easier peer review
- Foster new collaborations between data users and data creators
- Encourages improvement and validation of research methods



Data Management Planning

Your Data Librarian can help you create approved data management plans that meet specific agency grant application requirements

- 44+ DMPs created to date
- Operational data management planning services
- DMPs are centrally archived and available for reuse



Data Archiving

Your research data will be stored in a secure environment, and documented for access and use

- Secure data storage and back-up
- Research documentation
- Software and technical requirements archived with data
- Embargo restrictions available



Data Curation

Research data frequently needs to be transformed, converted, or reformatted to enable use by other researchers and students. Our Data Curation Librarian will provide the technical support required to transform your research data into publicly distributable form

- Data conversion/format updates
- Low-level metadata documentation
- Data reformatting and presentation



Data Publishing

When your research data is available for public distribution, our team will 'publish' a record of your research and links to access your data on LoboVault, UNM's open access repository

- LoboVault handle (URL) is a permanent link to your research
- Ability to post both data records and research articles together
- LoboVault participates in a variety of metadata harvesting networks (OAI-PMH)



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Please use this identifier to cite or link to this item: http://hdl.handle.net/1928/12559

Microtubule Gliding Assay

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Abstract:

Date:

Title: Microtubule Gliding Assay Author: Maloney, Andy; Koch, Steve

> Microtuble Kinesin

Subject Gliding Assay (s): Molecular Physics

Microtubule Gliding Assay

These data are images of gliding motility assays using kinesin-1 and 29% rhodamine tagged microtubules. Each image was taken with an Andor Luca S EMCCD camera with a gain of 150 and an exposure of 100 ms. A total of 600 frames at 5 frames/second were gathered using a 100 W mercury lamp attenuated by 94% with a neutral density filter. Each subfolder with images was approximately 2 minutes total exposure. The microscope used was an Olympus IX71 microscope with a PlanApo 60x 1.42 NA objective that was temperature stabilized at 33.1 C. The pixel size was measured to be 166.7 nm/pixel and the images taken were 496 x 658 pixels for a

field of view of approximately 83 x 110 microns. Each folder (alpha, beta, kappa, whole, and mixed) contain three assays where 20 different regions on a slide had images captured. The different labeled folders used 1.0 mg/mL of alpha (Sigma C6780), beta (Sigma C6905), kappa (Sigma C0406), whole (Sigma C7078) or mixed

bovine casein as the surface passivator in the gliding motility assay. The "mixed casein" was an approximate reconstitution of the different constituents of whole casein in the ratio found in bovine casein (49% α, 37% B, and 14% κ). The goal of this experiment was to measure speed variations of microtubules in the gliding motility

assay dependent on the type of surface passivator used.

ftp://ul-dhn5x1n1.colleges.ad.unm.edu/12559/

2011-05-02

Publisher: University of New Mexico Libraries

URI: http://hdl.handle.net/1928/12559 Available

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Files **Format** View

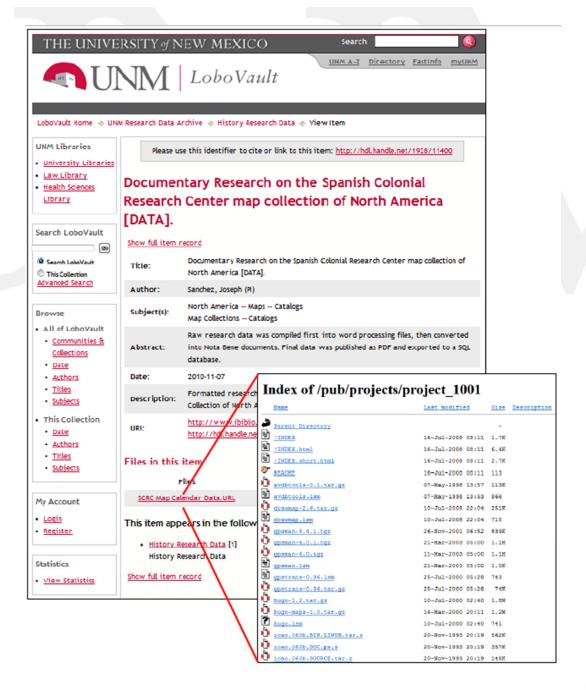
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This item appears in the following Collection(s)

Physics and Astronomy Faculty & Staff Publications [1]

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Current Projects

The following is a sample of research projects currently being processed for the UNM data archives

- Prof. Steve Koch Microtubial Gliding Assay
- Prof. Neddy Vigil Linguistic Survey of Spanish dialects among Spanish-speaking residents of New Mexico
- Spanish Colonial Research Center 17-18th century Spanish documents analysis data
- Prof. Andrea Polli Video project archive
- Others in progress



How to Get Started

 Data Management Planning or Archives submissions: Contact your Data Librarian for an initial assessment:

Todd Quinn
Data Librarian for Business and Economics
tq@unm.edu

- Help us prepare your data for archiving:
 - Remove confidential and personally identifiable information
 - Notify us about any rights management or licensing issues
 - Notify us of any embargo requirements
- Approve your finished data set for publication

