

Introduction

This Retrospective Data Request Information Package provides basic information for investigators proposing studies that require the use of NASA archived data. Top level information is provided about the two main NASA Archives - Lifetime Surveillance of Astronaut Health (LSAH), which houses medical data, and the Life Sciences Data Archive (LSDA), which houses research data - as well as the data request process.

1.1 Guidelines for Retrospective Investigations

Requesting and receiving data from NASA Archives can be a time consuming process. Most data are not compiled and ready for investigator use at the time of funding. Therefore, investigators should carefully consider the data they would like to request and justify the need for the data as it pertains to the aims of the research study. Research studies that require less data may be more quickly available for use. Feasibility of dataset creation will be considered in the grant selection process. The feasibility of providing data will be primarily determined based on the information provided in the Retrospective Data Request Study Feasibility Assessment Form. Care should be taken to ensure this form is accurately and thoroughly filled out.

1.2 Requesting Retrospective Data from the NASA Archives for Research

Access to NASA's human and animal life sciences data can assist the research community in providing a better understanding of the appropriate strategies required to mitigate spaceflight related health risks. These archives include data collected on the astronaut corps as part of medical evaluations and research studies. More information on the LSAH and LSDA projects can be found at: <http://lsda.jsc.nasa.gov/>

Research Data: Life Sciences Data Archive

The LSDA (https://lsda.jsc.nasa.gov/lsda_home.aspx) is a publicly accessible archive of data from NASA-funded spaceflight, flight analog and ground-based life sciences research studies. This searchable database includes human (astronaut and ground test subjects), animal and plant studies conducted from 1958 to the present. It contains over 2300 experiment descriptions, and non-attributable data for many investigations can be downloaded directly from the website. Additional information on and inquiries about the LSDA data can be made online at: <http://lsda.jsc.nasa.gov/common/dataRequestFAQ.aspx> or by email at jsd-lsda@mail.nasa.gov

Medical Data: The Lifetime Surveillance of Astronaut Health Project

The LSAH is a proactive occupational surveillance program for the astronaut corps to screen and monitor astronauts for occupational related injury or disease. The LSAH project examines the incidence of acute and chronic morbidity and mortality of astronauts, and defines the risks of morbidity and mortality associated with the occupational exposures encountered by astronauts. Data associated with the LSAH project includes clinical, mission, and occupational health information recorded during each astronaut's career as a NASA astronaut or payload specialist and from annual medical examinations after retirement from the astronaut corps.

Information about the medical requirements for both short-duration and long-duration human spaceflight is available online at <http://lsda.jsc.nasa.gov/docs/MRID/MRIDhome.aspx>

Limitations of the Data: The primary goal for collecting these data is for clinical purposes, rather than for a research study. The data content is driven by crew surgeon need – the data may list outcome (e.g. “normal”) rather than a specific value, the data may not always be collected for each crew member, or the data may be taken under different circumstances (e.g. an astronaut returning on a Soyuz may have different types of tests or test dates than an astronaut returning on a Shuttle).

1.3 Types of datasets

Data is preferentially provided to investigators in grouped or de-identified format. Identifiable (attributable) human medical and research data are only available for release with the written informed consent of the astronaut. Please note that not all data can be de-identified. Certain combinations of variables, such as mission length and gender, will make astronaut data identifiable. Final determination of the ability to de-identify data sets is done on a case-by-case basis.

1.4 Retrospective Study Implementation

Investigators should be aware that if they are selected for funding, they will be assigned a staff member (typically an Epidemiologist or Data Archivist) from the appropriate project to assist the investigation team with obtaining the necessary approvals that are needed prior to data release. The investigation team will need approval from 1) the Evidence Based Working Group (to assure the data request is feasible) and 2) the LSAH Advisory Board (if attributable data is needed); and 3) the JSC Institutional Review Board. If informed consent is necessary for the study, LSAH/LSDA personnel will coordinate consent briefings with the subjects, either remotely or in person. Simultaneously with working towards these approvals, the staff member will work with the investigation team to scope the variables and appropriate data formats needed for their project.