Weiss Cohort Studies: Data and Biospecimen Repository

Stanley H. Weiss, MD

1. Name of Activity:

Weiss Cohort Studies: Data and Biospecimen Repository

2. Project Leader:

Stanley H. Weiss, MD, FACP, FACE
Professor, Department of Preventive Medicine & Community Health (DPMCH), Rutgers New Jersey Medical School (NJMS), and
Department of Quantitative Methods, Rutgers School of Public Health

3. Other Faculty:

- Daniel M. Rosenblum, PhD - DPMCH, NJMS
- Scott R. Diehl, PhD - Director, Center for Pharmacogenomics & Complex Disease Research; Professor, Department of Oral Biology, Rutgers School of Dental Medicine; Professor of Health Informatics, Rutgers School of Health Related Professions
- Nikolaos Pyrsopoulos, MD - Division Director, Gastroenterology and Hepatology, Department of Medicine, NJMS
- Additional collaborations within Rutgers Biomedical and Health Sciences (RBHS) are under development

4. Project Staff:

- Fengshen (David) Kuo, PhD
- Under development

5. Mission/Vision:

[Project descriptions remain in development]

To maintain a long-term repository of biospecimens from injection drug users and related groups which are or can be linked to questionnaires, past laboratory measures, and registry outcome data as a research resource.

Utilize these data to answer important epidemiological and clinical questions.

Step-wise project development.
6. Background:

This data and biospecimen repository builds upon several prospective cohorts begun from 1981 on. Cohorts of injection drug users from New Jersey and from other U.S. locations were initiated in the 1980s, with consent obtained for long-term follow-up, including permission for registry linkage. All of these consent forms are held by Dr. Weiss. These studies were designed by Dr. Weiss while he was at the National Cancer Institute (NCI), and have included a broad set of collaborations. Past grant and federal intramural research support in excess of $10 million from the National Cancer Institute (part of the National Institutes of Health, NIH), the National Institute on Drug Abuse (NIDA), and the NJ Department of Health (NJDOH) were devoted to the initial stages of these projects.

Several related studies were also undertaken by Dr. Weiss as part of the activities of his Section at the Division of Cancer Epidemiology at the National Cancer Institute, including its authorized support staff and vendors. Consent forms and/or protocols were approved by all appropriate parties. For the “NJD” cohort described below, the New Jersey Department of Health (NJDOH) was a collaborator from the start, and its IRB also approved the procedures and consent. After Dr. Weiss came to the NJMS, for many years the NJDOH provide support for the NJD and related studies, both in terms of grant support and considerable in-kind support.

Biospecimens, variously including sera (from all cohorts), plasma, lymphocytes (Ficoll-hypaque separated with controlled rate freezing, with storage in liquid nitrogen to optimize cell viability), lymphocyte pellets, tissue, DNA, and derived EBV+ (immortalized) cell lines were obtained from subjects at various times through the late 1990s. These are cryopreserved and have been stored at NIH facilities as well as at NJMS. All consent forms specified that these specimens could be used for research purposes, and without any time limits.

Extensive questionnaire data on lifestyle, plus a variety of baseline lab tests, were accrued upon entry of the subjects; these are linked to the specimens. In addition, passive follow-up utilizing approaches such as national death index searches and linkage to various cancer and AIDS registries have been periodically performed on various portions of these cohorts. Periodic similar passive follow-up with such linkage analyses is anticipated to update the central database with outcome data. Periodic project-specific databases could be created.

The NIH, which had stored some of these biospecimens until now, has closed its involvement in these projects. Arrangements were made for Dr. Weiss at NJMS to receive and store this repository and ancillary databases for use in future research projects. These biospecimens (over 80,000 vials) were received by Dr. Weiss in September 2012 in a Materials Transfer approved by NIH and
UMDNJ, the largest in the history of UMDNJ. These serve to supplement specimens already stored by Dr. Weiss on campus.

We are currently developing a project structure and relevant documentation in anticipation of submission to and review by the appropriate human subjects’ protection review panels (IRB’s), an integral step prior to proceeding further, as well as a set of defined steps to bring forward the development of these cohorts.

Some specimens are currently de-identified.

For further information please contact the project Principal Investigator:

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7. Publications:

The following is a partial list of the publications and presentations relevant to the biospecimen and data repository that Dr. Weiss authored or coauthored. Additional references for published articles using specimens from these studies available on request.

“NJD” - Cohort from NJ (initiated in 1984, and later expanded with support from the NJDOH)


• Knox KR. Comparison of Cancer Incidence in HIV+ and HIV- Injection Drug Users: 15-Year Follow Up of a Cohort Study. New Jersey Medical School Summer Student Research Abstracts 2001; Abstract # 35.

“NID” - Cohort from multiple US locales:


“GIR” - study from Queens, NY, based on cohort initiated by Dr. José Giron in 1981:


“GRI” - study from NYC, linkage since broken:


Related to other related studies OR to more than one of the above:


Presentations, some of which are only indirectly related or pertain to multiple study groups, include:


• Ginzburg HM, Rose MR, Weiss SH. Educating parenteral drug users about AIDS. International Conference on AIDS, April 17, 1985, p. 7l.


• Weiss SH, French J, Holland B, Parker M, Lin-Greenberg A, Altman R. HTLV-I/II co-infection is significantly associated with risk for progression to AIDS among HIV + intravenous drug abusers. Fifth International Conference on AIDS, Montreal, Canada, 1989, Abstract No. Th.A.0.2.3.


• Weiss SH, et al. Older age and HTLV-I/II seropositivity are associated with increased risk for progression to AIDS; findings from the prospective cohort study of HIV-1 seropositive New Jersey drug abusers. Laboratory of Tumor Cell Biology Annual Meeting, Bethesda, MD, 1989.


- Weiss SH, French J, Klein CW, Mayur RK, Altman R. Mortality in the New Jersey IVDA cohort study: roles of HIV, HTLV-2, age, gender and entry symptoms. Laboratory of Tumor Cell Biology Annual Meeting, National Cancer Institute, August 1992, Bethesda MD.


- Weiss SH, Clerici M, Mayur RK, Denny TN, Quirinale JE, Hewlett IK, Epstein J, Palumbo PE, Berzofsky JA, Shearer GM. Immunologic and virologic responses to HIV exposure among a high risk but long-term HIV antibody negative cohort of drug users, and interactions with HTLV-II. Annual


• Weiss SH, Clerici M, Denny TN, Mayur RK, Heredia A, Quirinale JE, Berzofsky JA, Epstein JS, Hewlett IK, Shearer GM. HTLV-II and HIV infection. Abstract was solicited by the Program Committee for presentation at Late Breaker Session, Tenth International Conference on AIDS, Yokohama, Japan, August 8, 1994 (oral).

• Weiss SH. The evolving epidemiology and natural history of human T-cell lymphotropic virus type II (HTLV-II). Annual Laboratory of Tumor Cell Biology Meeting, Rockville MD, September 30, 1994 (oral).


• Weiss SH, Cook S, Pyatt G, Karcnik T, Hill G. Cancer occurrence in HIV-infected persons: the UMDNJ-University Hospital cancer registry and New


SUMMER RESEARCH. An abstract of each of these projects was printed in the booklet(s) of Summer Student Research Abstracts, New Jersey Medical School for the year noted, usually supported by the cancer training grant (when cancer related) or by the NHLBI Short-Term Training for Minority Students Research Training Grant at NJMS (when asthma related). Dr. Weiss served as their research advisor.

- Patel S. Cancers among HIV+ patients -- an epidemiologic analysis of the University Hospital cancer registry database. 1996. Abstract #49.
- Chen GS. Mortality due to cancer and HIV among injection drug users. 1999.
- Eltoukhy H. Characterization of Two Prospective Cohorts for Their Use in a Bio-Specimen Repository at NJMS. 2011.

REPORTS

- Ginzburg HM, Weiss SH. The human T-cell lymphotropic virus type III (HTLV-III) and drug abusers. Prepared as a Background Paper for the Committee on a National Strategy for AIDS; cited on page 334 in *Confronting AIDS: Directions for Public Health, Health Care, and Research* (1986) by the Institute of Medicine, with copies of this background report...
available from the Institute of Medicine, 2101 Constitution Ave NW, Wash DC 20418.

- Biggar RJ, The International Registry of Seroconverters [SH Weiss is listed in this article as one of the members of “The International Registry of Seroconverters”]. AIDS incubation in 1891 HIV seroconverters from different exposure groups. AIDS 4:1059-1066, 1990.


Letters in Journals


8. Opportunities for students:

Please call Dr. Weiss or his staff to discuss.

9. Opportunities for volunteers:

Please call Dr. Weiss or his staff to discuss.