Overview of the Toronto & Budapest Syphilis Research Group's Archive

Proposal: To preserve the records of international research into the role of *T. pallidum* as an immunological co-factor in developing Acquired Immune Deficiency Syndrome (AIDS)

1. Operating Hypothesis

- HIV has been misunderstood; there is to date no vaccine: all attempts show zero efficacy while claiming that the virus is both necessary and sufficient for HIV as the cause of AIDS. This claim is made despite the presence of broadly neutralizing antibodies to the virus (D.R. Burton, D.D. Richman et. al, 2016). HIV-1 regional sub-types A through G have remained mostly as they were in the mid 1980s. HIV-1 seems to behave more like a biomarker.
    - Senior American Investigators Robert Gallo (NIH), Ronald C. Desrosiers (Harvard) and Anthony S. Fauci (NIAID) have all remarked their surprise that HIV vaccines to prevent AIDS have completely failed: "There is something very, very peculiar going on in the vaccine trials… We've got to re-think these things." (Brown, 2008).
- Luc Montagnier, the French physician who discovered HIV, considered co-factors to be of importance in an HIV diagnosis (Montagnier, 1994).
- Reactivation TB (consumption) was the face of AIDS before 1960 in North America and Western Europe. (Dattner, B., 1944; Lagrange, P.H., 1988)
- Koch's (G&C IV) Phenomenon: persons with TB who had a weak or negative recall in this test were very hard to treat to the point of cure (Stanford 1991; Scythes 2016) which suggests Immune suppression in the capacity to recall.
- Syphilis screening using anti-lipoidal antigens failed to correlate syphilis with immune suppression in the pre-AIDS literature. (Musher D.M. et. al, *Annals of Internal Medicine*, 1990).
- Therefore, AIDS is a very old syndrome. Undetected syphilis has contributed to immune suppression and opportunistic infections, including some classical plagues such as Yersinia pestis, over the centuries.

2. Key Evidence

- Syphilis was associated with loss of recall in the Gell & Coombs Type IV reaction for the life of syphilitic patients, including anergy to T-cell mitogens (Dattner, B., 1944).

  - From the end of World War I, and until about 1955 DTH (delayed type hypersensitivity) (G&C IV) was considered a test for prevalence of any given infection, and was not understood as a comment on the immunological wellbeing of patients. After all, this was the era of the template biologist, often referred to as “instructional antibody theory,” as a way to explain the observed booster effect, often called the anamnestic response. It should be noted that all efforts to use DTH for syphilis management failed.

- By the late 1930s a diagnostic tuberculin was generally accepted (Seibert, 1959). A strong tuberculin reaction was often associated with stability and treatability of TB.

- The untreated patients in *The Oslo Study of Untreated Syphilis* (Gjestland, 1955) often died from the excess mortality associated with a syphilis infection (TB, pneumonia & cancers).

- Harrison (1954) offers several examples of opportunistic infections that today would be AIDS-defining.

  - Fatal outcomes from endemic and normally harmless fungous infections are commented on by D.S. Martin for fungal diseases such as *C. neoformans, C. albicans, B. dermatitidis, B. brasiliensis, C. immitis* and *H. capsulatum.*

  - From the chapter on Mycobacterial Infections by William M.M. Kirby, “Tuberculosis remains, however, one of the major causes of death in *young* adults… being second only to accidents in persons of 15 to 24 years of age.” (pp. 948-982). This mortality occurred, modern treatments notwithstanding.

- "There is no natural immunity to syphilis and past infection offers no protection to the patient." (https://www.health.ny.gov › syphilis › docs › fact sheet PDF; Wicher & Wicher, 1983).

- Sensitivity of all syphilis tests has been questioned in symptomatic HIV cases (Scythes et. al, IUSTI, 2016).

- Non-treponemal tests, based on lipoidal antigens, continue to be accepted yet lack sensitivity for at least half of all syphilis cases in the aggregate among these high-risk patients. (Luger, A.F.H., 1987, Musher, D.M.,1990).

- The immune system fails against syphilis, but looks rather good against HIV.

  - As an example of syphilis test (serologic) undersensitivity, Dr. Clarence C. Barnes (Chemical Engineering, U of T), a colleague of Scythes, wrote a

letter where he described his own experience with syphilis. All Barnes's immunological tests for syphilis seroreverted (nontreponemal and treponemal), and he died of AIDS shortly after. (TBSRG Archive Holding)

- Needle stick and transfusion exposure to HIV rarely leads to HIV-seroconversion or AIDS, other than in homosexual males (King, K.C. CDC, 2022).

- There are no existing animal models for HIV that are remotely close to what we see in humans and call HIV-disease. (Essex, Barcelona World AIDS Congress, 2002). However, there are animal models that suggest immune suppression from syphilis (Rosahn 1952, Horvath 1989 & 1991, Moore 1942, Chandler 1976, Hinton 1936)

3. Research History

3a) Toronto Budapest Syphilis Research Group

Fralick, R.A., Scythes, J.B., Notenboom, R.H., MacFadden, D.K., "Syphilis and HIV: seroprevalence and clinical observations in HIV clinic," ISSTDR Helsinki 1993, Suppl 2, *Journal of Sexually Transmitted Diseases*, April 1994, abstract 271

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Nagy, K., Scythes, J.B., Horvath, I., Kemeny, B., Talha, E., Notenboom, R.H., Horvath, A., "Experience of molecular screening for syphilis by PCR," 15th ISSTDR, Ottawa 2003, paper # 0312

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Scythes, J.B., "Animal model for AIDS immunology, secondary to symptomless infection with the Treponema pallidum." VIII International AIDS Conference, 1992 Amsterdam

Scythes, J.B., "Syphilis and HIV infection," IX International Conference on AIDS, Berlin, 7-11 June 1993, Community Initiative for AIDS Research. PO – BO2 – 0941

Scythes, J.B., "Cofactors and AIDS, the historical perspective," VIII African Conference on AIDS, December 1993, Casablanca, Publication # WPB-039

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Scythes, J.B., “Do co-factors impact AIDS progression?” IUVDT World STD/AIDS congress, Singapore, 19th - 23rd March 1995. co-plenary session presentation

Scythes, J.B., Jones, C.M., Notenboom, R.H., “A new gold standard for syphilis?” Meeting proceedings in *Journal of the European Academy of Dermatology and Venereology*. 18, Suppl 1, PS 230 (2004)

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Scythes, J.B., Jones, C.M., “Syphilis in the AIDS era: Diagnostic Dilemma and Therapeutic Challenge,” *Acta Microbiologica Hungarica*, 60 (2) 93-116 (2013) doi: 10.1556/AMicro. 60.2013.2.2

Scythes, J.B., Jones, C.M., “Under-diagnosis of syphilis in HIV/AIDS,” (session chairs: J. Scythes, M. Janier) 30th EU IUSTI Budapest Sept 15-17, 2016. doi:10.13140/RG.2.2.33012

Scythes, J.B., Jones, C.M., “Undersensitive non-treponemal tests,” 2019 STI & HIV World Congress, July 14-17 Vancouver, Poster P752. *STI* 95 (Suppl 1) A 323. doi: 10.1136/sextrans - 2019 - sti.810. Poster on BMJ website

Talha E., Kemeny, B., Horvath, I., Scythes, J.B., Nagy, K., Notenboom, R.H., Horvath, A., “Syphilis PCR,” *Borgyogyaszati es Venerológiai Szemle* 2003 (79), 65-68

3b) Additional Research cited above

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Essex, Myron, (Harvard University, Personal Communication, Barcelona World AIDS Congress, 2002), also: well-publicized closing of the New England Primate Center

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Rosahn, P.D., "Autopsy Studies in syphilis", *Ven. Dis. Inform.,* Suppl. 21, Government Printing Office, Washington, D.C., 1947

Rolfs R.T. et. al, "A Randomized Trial of Enhanced Therapy for Early Syphilis in Patients with and without HIV" *N. Engl. J. Med.* (337) pgs. 307-344

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4. Value

These papers introduce for the record a line of research into a major pandemic (AIDS), operating with a supplemental hypothesis that may yet have value. The scope of the work was international, and there remain important questions to be answered.

5. Archive Contents

5.1 Correspondence – Items **10.5 cm**. shelf space, hard copies. Key authors:
Luc Montagnier, World AIDS Foundation, NYC, UNESCO Annex, Paris,
Istvan Horvath, Dr. of Science, Dr. of Medicine, Hung. Acad. Sci.,
Anton Luger, Hofrat Prof., Uni. Wien.,
Sheila A. Lukehart, Prof. of Medicine, Harbourview Medical Centre, U. Washington,
Karoly Nagy, Prof. of Medicine, Director, Hungarian AIDS Initiative, Chair, Medical Microbiology, Semmelweis U.,
Noel R. Rose, Johns Hopkins, Medicine
Arthur M. Silverstein, Johns Hopkins, History of Medicine
Alfred Imre Tauber, Boston U., History of Medicine
Tommy Turner, Dean of Medicine, Johns Hopkins Medicine
Philip B. Berger, Assoc. Prof., Temerty Faculty of Medicine, U of T & Members of Dr. Berger’s HIV Primary Care Group; David Tilley, Wayne Boone, Ed Kamski, Denis Conway, Don McCauley, & Brian Maynard Cornelson and others

5.2 Research Notes – Several hundred pieces of correspondence and unpublished observations stretching from 1987 to 2019. Also included in the donation is a selection of original Journalism by Colman Jones, as well as abstracts, presentations, and published medical papers that reflect the work’s international nature. There are also records showing the financial support John generously provided to several Physicians.

5.3 Publications – **251** Books & Journal issues and individual articles, including all items cited in section 3. These materials occupy approximately 5 meters of shelf space. They include a selection of Journalism by Colman Jones, who wrote news articles about HIV/AIDS and related STIs for *NOW Magazine* and *Spin Magazine*. He also created CBC Radio documentaries on this topic. A complete list of Colman’s work is viewable in the joint John Scythes & Colman Jones CV we included in the donation.

5.4 Equipment – Records related to a closed-system (TAQ) thermocycler purchased for the Semmelweis Microbiology Department, 10th Floor, S.O.T.E., Budapest, Hungary, 1999-2000