EVOLUTION & TRANSITION OF THE SUNY DOWNSTATE IRB

Phyllis G. Supino, EdD
Professor of Medicine & Public Health
Director of Clinical Epidemiology & Clinical Research
Division of Cardiovascular Medicine, SUNY DMC
IRB Chair

Presented to the President’s Transition Committee       August 16, 2017
Objectives

- To provide a brief overview of the transition from unregulated to regulated human subjects research in the US
- To describe SUNY DMC IRB’s mission, composition, approval process
- Challenges and initiatives
Prior to the 20 century, human subjects research was mostly unregulated in the US, as in the rest of the world.
Early Unregulated Research with Human Subjects (a sampling)

1845-1849
A series of experimental gynecological operations performed without anesthesia on enslaved African-American women.

1874
Needle electrodes inserted into brain of a "feeble minded" servant woman as part of a series of experiments in cerebral localization.

1895
Two "idiot" boys infected with gonorrhea to investigate causative agents.

1898
Spinal fluid withdrawn from 29 hospitalized children to determine effectiveness of "spinal tapping".

1900
Individuals deliberately infected with yellow fever.

1908
Children infected at orphanages with tuberculin in order to compare the effectiveness of several diagnostic tests.

Early Unregulated Research with Human Subjects: a sampling (cont’d.)

- Over 600 inmates injected with animal testicular tissue 1918-22
- Orange juice withheld from infants until they showed characteristic hemorrhages of soury. 1921
- 1939
  Children subjected to harassment and negative therapy in an attempt to induce stuttering.
- 1944
  Researchers injected live cancer cells into infantile, chronically ill elderly patients without their consent 1963

Key historical events that directly led to the development of federal regulations
Nuremberg Trials (1946-47)

- Post-WWII trials of 23 Nazi Doctors for war crimes and crimes against humanity
- 16 Doctors found guilty
- 7 Doctors received death penalty
- Led to Nuremberg Code:
  - Principle #1: Voluntary consent is absolutely essential

- Eunice Rivers, RN hired to recruit participants into a six (6) week study
- Offered “free medical care” for “bad blood”
- Not offered penicillin (1943)
- Research continued for forty (40) years
Tuskegee Syphilis Study Exposé (1972)

- 1967-8: Peter Buxton, social worker, reports concerns to PHS, but is ignored for several years
- 1972: Blows whistle to the Associate Press
- 1973: Research stops and Congress investigates
Legislative Initiatives to Protect Human Subjects of Research in the U.S.

- **1974: National Research Act (US) signed into law** (in response to Tuskegee Syphilis Study)
  - The Act created National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research which issued many guidance documents
  - Established IRBs as central mechanism to protect human subjects in research
- **1979: The Belmont Report (most prominent)**
  - Described the ethical principles and guidelines for the protection of human subjects of research that had been identified by the National Commission
  - Defined 3 fundamental ethical principles for human subjects in research: respect for persons, beneficence, and justice
  - Today, the Belmont Report continues as an essential reference for IRBs.
- **1981: IRBs established to review biomedical and behavioral research involving human subjects at 100’s of institutions receiving federal research funds.**
  - =basic set of protections for government-funded research involving human ss (guides IRBs)
Institutional Review Board (IRB): Mission

- Protects the rights and welfare of research participants.
- Empowered to approve, require modifications, or disapprove Human Subjects Research.
- Ensures Human Subjects Research is scientifically valid, ethical & in compliance w/all regulations, policy requirements
- Ensures compliance through oversight functions; e.g., review of initial/continuing research, requesting audits from OCAS
IRB Committee A

<table>
<thead>
<tr>
<th>Primary</th>
<th>Alternate(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phyllis Supino, Ed.D.</td>
<td></td>
</tr>
<tr>
<td>Chairperson</td>
<td></td>
</tr>
<tr>
<td>Medicine and Public Health</td>
<td></td>
</tr>
<tr>
<td>Daniel Cukor, Ph.D.</td>
<td>1) Kevin L. Nellis, MS, MT(ASCP), CIP</td>
</tr>
<tr>
<td>Vice-Chair</td>
<td>IRB Administration, Privacy Officer Designee, Non-Scientist</td>
</tr>
<tr>
<td>Psychiatry</td>
<td>2) Diann Johnson, M.P.H.</td>
</tr>
<tr>
<td></td>
<td>IRB Administration and Non-Scientist</td>
</tr>
<tr>
<td></td>
<td>3) Danielle Lewis, MD, MPH</td>
</tr>
<tr>
<td></td>
<td>IRB Administration and Non-Scientist</td>
</tr>
<tr>
<td></td>
<td>4) Nikol Celestine, BA, CIP</td>
</tr>
<tr>
<td></td>
<td>IRB Administration and Non-Scientist</td>
</tr>
<tr>
<td>Noreen Bhola, M.S.A.</td>
<td></td>
</tr>
<tr>
<td>Retired Administrator &amp; Community Member</td>
<td></td>
</tr>
<tr>
<td>(Non-Affiliated and Non-Scientist)</td>
<td></td>
</tr>
<tr>
<td>Jeffrey Birnbaum, M.D.</td>
<td>Nidhi Goel, MD</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>Psychiatrist, Prisoner Representative, and Community Member (Non-Affiliated)</td>
</tr>
<tr>
<td>Jeffrey Borer, M.D.</td>
<td>Daniel M. Rosenbaum, MD</td>
</tr>
<tr>
<td>Cardiology</td>
<td>Neurology</td>
</tr>
<tr>
<td>A. Ross Hill, M.D.</td>
<td>Iuliana Shapiro, MD</td>
</tr>
<tr>
<td>Pulmonary Medicine</td>
<td>Hematology Oncology</td>
</tr>
<tr>
<td>Jeannette Jakus, MD, MBA</td>
<td></td>
</tr>
<tr>
<td>Dermatology</td>
<td></td>
</tr>
<tr>
<td>Jean Mc Hugh, MSN, APRN-BC, CNS-BC</td>
<td></td>
</tr>
<tr>
<td>Nursing</td>
<td></td>
</tr>
<tr>
<td>Tonya N. Taylor, PhD, MS</td>
<td>Kathleen Powderly, C.N.M., Ph.D.</td>
</tr>
<tr>
<td>Infectious Disease/STAR Program</td>
<td>Ethicist</td>
</tr>
<tr>
<td>Isaac Topor, Ed. D.</td>
<td>1) Jeremy Weedon, Ph.D.</td>
</tr>
<tr>
<td>Medical Informatics</td>
<td>Biostatistic (CoM Research Division)</td>
</tr>
<tr>
<td></td>
<td>2) Dimitre G. Stefanov, Ph.D.</td>
</tr>
<tr>
<td></td>
<td>Biostatistic (CoM Research Division)</td>
</tr>
</tbody>
</table>

Quorum = 6 including one non-scientist. MD must be present for FDA studies.
# IRB Committee B

<table>
<thead>
<tr>
<th>Primary</th>
<th>Alternate(s)</th>
</tr>
</thead>
</table>
| Phyllis Supino, Ed.D  
Chairperson  
Medicine and Public Health |  |
| Stanley Friedman, M.D.  
Vice-Chair  
Pharmacology |  |
| Noreen Bhola, M.S.A.  
Retired Administrator & Community Member  
(Non-Affiliated and Non-Scientist) | 1) Kevin L. Nellis, MS, MT(ASCP), CIP  
IRB Administration, Privacy Officer Designee,  
Non-Scientist  
2) Diann Johnson, M.P.H.  
IRB Administration and Non-Scientist  
3) Danielle Lewis, MD, MPH  
IRB Administration and Non-Scientist  
4) Nikol Celestine, BA, CIP  
IRB Administration and Non-Scientist |  |
| Joan Cracco, M.D.  
Neurology | Samrat H. Worah, MD  
Anesthesiology Critical Care Medicine |  |
| Susan Gottesman, M.D., Ph.D  
Pathology |  |
| Margaret Hammerschlag, M.D.  
Pediatrics |  |
| Elizabeth Helzner, Ph.D.  
Epidemiology |  |
| Louis Salecicioli, M.D.  
Cardiology | Mary Ann Banerji, M.D.  
Medicine/Endocrinology |  |
| Dimitre G. Stefanov, Ph.D.  
Biostatistician (CoM Research Division) | 1) Jeremy Weedon, Ph.D.  
Biostatistician (CoM Research Division)  
2) Kathleen Powerdy, C.N.M., Ph.D.  
Ethicist  
3) Nidhi Goel, MD  
Psychiatrist, Prisoner Representative, and  
Community Member (Non-Affiliated) |  |

Quorum = 5 including one non-scientist. MD must be present for FDA studies.
IRB Committee E

<table>
<thead>
<tr>
<th>Primary</th>
<th>Alternate(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phyllis Supino, Ed.D</strong></td>
<td></td>
</tr>
<tr>
<td>Chairperson</td>
<td></td>
</tr>
<tr>
<td><em>Medicine and Public Health</em></td>
<td></td>
</tr>
<tr>
<td><strong>Daniel Cukor, Ph.D.</strong></td>
<td></td>
</tr>
<tr>
<td>Vice-Chair, Committee A</td>
<td></td>
</tr>
<tr>
<td>Psychiatry</td>
<td></td>
</tr>
<tr>
<td><strong>Stanley Friedman, M.D.</strong></td>
<td></td>
</tr>
<tr>
<td>Vice-Chair, Committee B</td>
<td></td>
</tr>
<tr>
<td>Pharmacology</td>
<td></td>
</tr>
<tr>
<td><strong>Noreen Bhola, M.S.A.</strong></td>
<td>1) George Frangos, Ph.D</td>
</tr>
<tr>
<td>Retired Administrator &amp; Community Member</td>
<td>Administration and Non-Scientist</td>
</tr>
<tr>
<td>(Non-Affiliated and Non-Scientist)</td>
<td>2) Kevin L. Nellis, MS, MT(ASCP), CIP</td>
</tr>
<tr>
<td></td>
<td><em>IRB Administration, Privacy Officer Designee, Non-Scientist</em></td>
</tr>
<tr>
<td></td>
<td>3) Diann Johnson, M.P.H.</td>
</tr>
<tr>
<td></td>
<td><em>IRB Administration and Non-Scientist</em></td>
</tr>
<tr>
<td></td>
<td>4) Danielle Lewis, MD, MPH</td>
</tr>
<tr>
<td></td>
<td><em>IRB Administration and Non-Scientist</em></td>
</tr>
<tr>
<td></td>
<td>5) Nikol Celestine, BA, CIP</td>
</tr>
<tr>
<td></td>
<td><em>IRB Administration and Non-Scientist</em></td>
</tr>
<tr>
<td><strong>Kathleen Powderly, C.N.M., Ph.D.</strong></td>
<td></td>
</tr>
<tr>
<td>Ethicist</td>
<td></td>
</tr>
<tr>
<td><strong>Iuliana Shapira, MD</strong></td>
<td>1) Nidhi Goel, MD</td>
</tr>
<tr>
<td>Division Chief, Hematology Oncology</td>
<td>*Psychiatrist, Prisoner Representative, and Community Member (Non-Affiliated)</td>
</tr>
</tbody>
</table>

Quorum = 4 including one non-scientist. MD must be present for FDA studies.
IRB Approval Process

- Via e-submission Website [“IRB Net”]
Activities Requiring IRB Review

- **Clinical Trials** involving drugs, biologics, devices; including use of specimens to validate a medical device, diagnostic instrument, or laboratory test (FDA)

- **Research involving Protected Health Information (PHI)** from living or deceased patients or employees (HIPAA)

- **Human (Subjects) Research** as defined by “Common Rule” (45 CFR Part 46)
Types of IRB Applications

- Determination Letter (indicates IRB review is NOT required)
- Exempt
- Expedited
- Full Board (Convened IRB Review)
- Clinical Use of an Humanitarian Use Device (HUD)
- External IRB (some multi-site research)
- Single IRB Review for multi-site IRB research (to be mandated):
  --for non-exempt NIH-supported multi-site studies: 1/2018
  --“Final Rule” (Revision to Common Rule) (OHRP 1/2020)
Exemption Categories*

1) Normal educational practices in established educational settings
2) Educational tests, surveys**, interviews**, or observation of public behavior – unless identified & sensitive
3) Research on elected or appointed officials or candidates for public office
4) Research on existing data, if publically available or recorded without identifiers
5) Evaluation of public service programs
6) Taste and food quality evaluation and consumer acceptance studies

* Does not apply to research with prisoners.
** Does not apply to research with children.

*(WILL CHANGE JANUARY 2018)*
Activities Able To Receive Expedited Review

- Clinical studies of drugs and medical devices only under specific conditions
- Chart reviews
- Survey research which is sensitive and includes identifiable information
- Collection of blood samples
- Biological specimens obtained by non-invasive means
- Collection of data through non-invasive means
- Materials collected solely for non-research purposes
- Collection of data from voice, video, etc.
- Research employing surveys, focus groups, etc.
- Continuing review under specific conditions
- Regulations will change January 2018
Studies Requiring Full Board Review

- Studies involving greater than minimal risk
- Clinical Trials involving IND, IDE, HUD, or NSR device
- Humanitarian Use Device (HUD) for clinical purpose
- Initial review of research that otherwise meets the criteria for “expedited review”:
  - Biomedical IVs w/vulnerable pops. (children, pregnant women, neonates, prisoners, cognitively impaired adults)
  - Certificates of Confidentiality
External IRB Oversight

- Can request the use of an external IRB for multi-site studies

- Cannot be used for the following:
  - IDE studies (FDA requirement)
  - Downstate as a single site*
  - Research reviewed by DMC IRB and determined to require revisions or has not been approved by DMC IRB*

(*to prevent IRB “shopping”)*
## IRB Work Load: Reviews & Acknowledgements

<table>
<thead>
<tr>
<th>Submission Type</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Board</td>
<td>31</td>
<td>63</td>
<td>46</td>
</tr>
<tr>
<td>Expedited/ Exempt*</td>
<td>56</td>
<td>147</td>
<td>160</td>
</tr>
<tr>
<td>External IRB</td>
<td>0</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>IRB Determinations</td>
<td>0</td>
<td>2</td>
<td>34</td>
</tr>
<tr>
<td><strong>TOTAL NEW PROJECTS</strong></td>
<td>87</td>
<td>214</td>
<td>251</td>
</tr>
<tr>
<td>Other Submissions (reportable events, continuing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>reviews, amendments, closures, etc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL ALL SUBMISSIONS</strong></td>
<td>534</td>
<td>1081</td>
<td>1544</td>
</tr>
</tbody>
</table>

*Research involving vulnerable populations no longer going to FB if no IVs
## Workload: Active Studies
(as of 7/20/2017)

<table>
<thead>
<tr>
<th>Type</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unfunded (includes unfunded exempt studies)</td>
<td>872 (75%)</td>
</tr>
<tr>
<td>Industry</td>
<td>152 (13%)</td>
</tr>
<tr>
<td>Federal</td>
<td>76 (7%)</td>
</tr>
<tr>
<td>Oncology Group</td>
<td>41 (4%)</td>
</tr>
<tr>
<td>SUNY/SUNY RF</td>
<td>15 (1%)</td>
</tr>
</tbody>
</table>
Estimated Average Turn Around Times*

- IRB Determinations (3 days)
- Exempt submissions (13 days)
- Expedited submissions (28 days)
- Full Board submissions, straight approval (38 days)
- Full Board submissions requiring conditional approval (48 days)
- Full Board submissions requiring modifications (78 days)
- Acknowledgement of External IRB approval (3 days)**

*Excludes SRC review, Department head review, and investigator response time (all unknown); includes ancillary reviews, when applicable.

**All ancillary reviews and requirements complete.
Estimated Iterative Review Time: Typical Full Board Study

1. SRC, Departmental, and Ancillary Reviews (14-30 days)
2. IRB Pre-Review (optional)/IRB Office Workspace (3 days)
3. Unlocked for investigator revisions (7 days)
4. Full Board review of submission (14 days)
5. Investigator response to conditional approval (7 days)
6. Review of response to conditional review (3 days)
7. IRB Review Time: 20 days
   Total review time: 48-64 days
Changes and Innovations (selected)

- IRB Steering Committee
- New IRB Chair
- New Executive Director and IRB Office Staff
- New IRB faculty members (clinicians, methodologists)
- “Pre-Review” option available to investigators (by Chair, Executive Director, Administrative staff)
- Convened meetings: reviews restructured for efficiency
- “Post-Review”: Chair/Vice Chairs personally review all letters to PI’s
Changes and Innovations

- New Website
- New policy
- New forms and consent templates
- New investigator guidance (16 documents) including how to write a research protocol, Decision Aid (IRB submission process)
- New checklists (SRC review, IRB member review [currently pilot] )
Changes and Innovations

- New educational opportunities, lectures, and seminars
  - Research Methods course (annual)
  - Resident, student Department faculty training (4-6 x/yr)
  - IRB Updates (newsletter) (3-4 x/year)
- Initiating monitoring and audit program (w/OCAS) to address issues of non-compliance
- Research Education Subcommittee Formed
  - Educational Needs Assessment
Current Challenges & Concerns

- Investigators conducting research w/o IRB approval: ↓ awareness?
- Poor quality of some IRB submissions: → ↑ turn around time
  - protocols/applications/other documents internally inconsistent
  - Consent forms not readable (organization, language, length)
  - Weak study designs/stats (esp. “home-grown” studies)
- Ancillary reviews (IBC, Pathology, Pharmacy) = a barrier to efficiency
- Variability (quality/timeliness) of SRC reviews (IRB frequently requires design revisions)
- IRB membership
  - Recruitment & Incentives
  - Training
Ongoing & In Progress (cont’d)

- Implementation of the revised Common Rule (Jan 2018)
- Reduce length of IRB applications
- Implementation of SUNY PACS (Click)
- Implement Quality Improvement Committee for IRB processes
- Review and critique IRB website for improvement
- Create new guidance for transmitting research results and incidental findings to research participants
- Strengthen linkages/communications with DMC academic leadership & leadership committees to ↑info sharing
In Progress

- IRB Workshops (IRB applications, Informed Consent, IRB Member training, etc)
- Standardize IRB office procedures
- Research Participant Flyer (used to educate potential participants and aid recruitment)
- Establish external recruitment websites with Pre-Awards
- Help Pre-Awards and CTSC develop enrollment website
- Destroy outdated IRB records and archive current records
- Consider AAHRPP Accreditation or alternative peer review
  - Could attract more sponsored funding
  - Can enable SMART IRB Process (Single IRB for multi-site studies)
External Opportunities for Investment in the Downstate Research Enterprise

- Optional Centralized Scientific Review Committee
- Create a research coordinator pool to expand support of investigators
- Education, Education, Education...
- Improve training, mentoring, faculty development, and transparency
- Creating a pool of academic and clinical consultants and mentors
- Expand IRB Steering Committee
- Identifying funding/collaborations to support these initiatives
Summary

- Significant progress has been made by our IRB during past few years
- We recognize that challenges remain that the IRB can directly address
- There are many opportunities that the institution can address.
Acknowledgement

Kevin L. Nellis, MS, CIP
Executive Director, Human Research Protections and Quality Assurance
Research Foundation for SUNY - Downstate Medical Center
Office of Research Administration - Institutional Review Board
450 Clarkson Avenue, Box 1284 (BSB 3-26)
Brooklyn, NY 11203-2098
(718) 613-8461
kevin.nellis@downstate.edu
http://research.downstate.edu/irb/irb.html
<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Title</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phyllis G. Supino, EdD*</td>
<td>IRB Chair, Boards A, B, E</td>
<td></td>
<td>(718) 613-8355</td>
</tr>
<tr>
<td>Daniel Cukor, PhD</td>
<td>Vice Chair, Board A</td>
<td></td>
<td>(718) 270-2077</td>
</tr>
<tr>
<td>Stanley Friedman, MD</td>
<td>Vice Chair, Board B</td>
<td></td>
<td>(718) 270-1335</td>
</tr>
<tr>
<td>Kevin L. Nellis, MS, CIP</td>
<td>Executive Director, Human Research Protection &amp; Quality Assurance</td>
<td></td>
<td>(718) 613-8461</td>
</tr>
<tr>
<td>Diann Johnson, MPH</td>
<td>Associate IRB Administrator</td>
<td></td>
<td>(718) 270-4341</td>
</tr>
<tr>
<td>Danielle Lewis, MD, MPH</td>
<td>IRB Management Analyst</td>
<td></td>
<td>(718) 270-4454</td>
</tr>
<tr>
<td>Nikol Celestine, BA, CIP</td>
<td>IRB Management Analyst</td>
<td></td>
<td>(718) 270-4411</td>
</tr>
<tr>
<td>Nakih Gonzales, IRB Assistant</td>
<td></td>
<td></td>
<td>(718) 270-4372</td>
</tr>
<tr>
<td>IRB Office (BSB 3-26)</td>
<td></td>
<td></td>
<td>(718) 613-8480</td>
</tr>
</tbody>
</table>

* Phyllis.Supino@downstate.edu
http://research.downstate.edu/irb/irb.html