State of the IMPAACT Network
May 8, 2013

Brooks Jackson, MD, MBA
Specific Aims

- Develop and evaluate safe, cost effective approaches to interrupt mother-to-child transmission (MTCT)

- Evaluate treatments for HIV-infected infants, children, adolescents, and pregnant women, including treatment and prevention of co-infections and co-morbidities

- Evaluate vaccines for prevention of MTCT and sexual transmission among adolescents, and for therapeutic use
 IMPAACT Protocols Since 2006

Since June 2006 IMPAACT has opened/conducted 48 interventional protocols involving more than 9,426 women and children at 74 clinical trial sites around the world.

<table>
<thead>
<tr>
<th>Number</th>
<th>Type of Protocol</th>
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<tbody>
<tr>
<td>10</td>
<td>Vaccine protocols involving 8 different pathogens</td>
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<tr>
<td>15</td>
<td>ARV PK protocols</td>
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<tr>
<td>7</td>
<td>ARV treatment strategy protocols</td>
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<tr>
<td>8</td>
<td>PMTCT protocols</td>
</tr>
<tr>
<td>1</td>
<td>TB drug protocols</td>
</tr>
<tr>
<td>5</td>
<td>Metabolic complication protocols</td>
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In addition 117 DACS and NWCS have been completed or in process.
All IMPAACT Sites
Number of Subjects on Interventional Studies
By Month From May 2012 through April 2013
IMPAACT 1077HS Cumulative Accrual by Country through 30 April 2013

Cumulative Total (All Sites)
n = 1,043 women

Targeted Total
n = 2000 women
IMPAACT 1077BF Cumulative Accrual by Country through 30 April 2013

Cumulative Total (All Sites)
\( n = 2,271 \) mother-infant pairs

Targeted Total
\( n = 5,900 \) mother-infant pairs

Country (# sites)
- Malawi (2)
- South Africa (5)
- Zimbabwe (3)
- Uganda (1)
- India (1)
- Zambia (1)
- Tanzania (1)
Between June 2006 and May 2013 there have been 314 IMPAACT related publications including 7 papers in the NEJM, Lancet, and JAMA in the last 2 years.
Three Postpartum Antiretroviral Regimens to Prevent Intrapartum HIV Infection

Karin Nielsen-Saines, M.D., D. Heather Watts, M.D., Valdilea G. Veloso, M.D., Yvonne J. Bryson, M.D., Esau C. Joao, M.D., Jose Henrique Pilloito, M.D., Glenda Gray, M.D., Gerhard Theron, M.D., Breno Santos, M.D., Rosana Fonseca, M.D., Regis Kreitchmann, M.D., Jorge Pinto, M.D., Marisa M. Mussi-Pinhata, M.D., Mariana Ceriotto, M.D., Daisy Machado, M.D., James Bethel, Ph.D., Marisa G. Morgado, Ph.D., Ruth Dickover, Ph.D., Margaret Camarca, M.P.H., Mark Mirochnick, M.D., George Siberry, M.D., Beatriz Grinsztejn, M.D., Ronaldo I. Moreira, M.Sc., Francisco I. Bastos, Ph.D., Jiahong Xu, M.P.H., Jack Moye, M.D., and Lynne M. Mofenson, M.D., for the NICHD HPTN 040/PACTG 1043 Protocol Team*
Efficacy and safety of an extended nevirapine regimen in infant children of breastfeeding mothers with HIV-1 infection for prevention of postnatal HIV-1 transmission (HPTN 046): a randomised, double-blind, placebo-controlled trial

Hoosen M Coovadia, Elizabeth R Brown, Mary Glenn Fowler, Tsungai Chipato, Dhayendre Moodley, Karim Manji, Philippa Musoke, Lynda Stranix-Chibanda, Vani Chetty, Wafaie Fawzi, Clemensia Nakabiito, Lindiwe Msweli, Roderick Kisenge, Laura Guay, Anthony Mwatha, Diana J Lynn, Susan H Eshleman, Paul Richardson, Kathleen George, Philip Andrew, Lynne M Mofenson, Sheryl Zwierski, Yvonne Maldonado, for the HPTN 046 protocol team
Nevirapine versus Ritonavir-Boosted Lopinavir for HIV-Infected Children

Feasibility and Safety of ALVAC-HIV vCP1521 Vaccine in HIV-Exposed Infants in Uganda: Results From the First HIV Vaccine Trial in Infants in Africa

Kenneth Kintu, MBcHB,* Philip Andrew, RN,† Philippa Musoke, MBcHB, PhD,* Paul Richardson, MSc,‡ Brenda Asiimwe-Kateera, MBcHB,* Teopista Nakywago, BA,* Lei Wang, PhD,§ Mary Glenn Fowler, MD, MPH,§ Lynda Emel, PhD,§ San-San Ou, MS,§ Lynn Baglyos, MS,|| Sanjay Gurunathan, MD,|| Sheryl Zwerski, RN,‡ Jay Brooks Jackson, MD,‡ and Laura Guay, MD#
Safety and Immunogenicity of 2009 pH1N1 Vaccination in HIV-Infected Pregnant Women

Mark J. Abzug,1 Sharon A. Nachman,2 Petronella Muresan,3 Edward Handelsman,4,a D. Heather Watts,5 Terence Fenton,3 Barbara Heckman,6 Elizabeth Petzold,7 Adriana Weinberg,1,h and Myron J. Levin1,h; for the International Maternal Pediatric Adolescent AIDS Clinical Trials Group P1086 Protocol Team6

1Department of Pediatrics, Infectious Diseases, University of Colorado School of Medicine and Children’s Hospital Colorado, Aurora; 2Department of Pediatrics, State University of New York Health Science Center at Stony Brook; 3Statistical and Data Analysis Center, Center for Biostatistics in AIDS Research, Harvard School of Public Health, Boston, Massachusetts; 4Division of AIDS, National Institute of Allergy and Infectious Diseases, and 5Maternal and Pediatric Infectious Diseases Branch, Eunice Kennedy Shriver National Institute of Child Health and Human Development, Bethesda, Maryland; 6Frontier Science and Technology Research Foundation, Buffalo, New York; and 7Social and Scientific Systems, Silver Spring, Maryland
Safety and Immunogenicity of 2009 Pandemic H1N1 Influenza Vaccination in Perinatally HIV-1–Infected Children, Adolescents, and Young Adults

Patricia M. Flynn,1 Sharon Nachman,2 Petronella Muresan,3 Terence Fenton,3 Stephen A. Spector,4,5 Coleen K. Cunningham,6 Robert Pass,7 Ram Yogev,8 Sandra Burchett,9 Barbara Heckman,10 Anthony Bloom,10 L. Jill Utech,1 Patricia Anthony,11 Elizabeth Petzold,12 Wende Levy,12 George K. Siberry,12 Ruth Etiasah,14 Judi Miller,14 Edward Handelsman,19 and Adriana Weinberg15, for the IMPAACT P1088 Team

pH1N1 Vaccine in HIV-Infected Children  •  JID 2012:206 (1 August)  •  421
Dynamics of the resting CD4$^+$ T-cell latent HIV reservoir in infants initiating HAART less than 6 months of age

Deborah Persaud$^a$, Paul E. Palumbo$^b$, Carrie Ziemniak$^a$, Michael D. Hughes$^c$, Carmelita G. Alvero$^c$, Katherine Luzuriaga$^d$, Ram Yogev$^e$, Edmund V. Capparelli$^f$ and Ellen G. Chadwick$^e$

AIDS 2012, 26:1483–1490
Pubertal onset in HIV-infected children in the era of combination antiretroviral treatment

Williams, Paige L.; Abzug, Mark J.; Jacobson, Denise L.; Wang, Jiajia; Van Dyke, Russell B.; Hazra, Rohan; Patel, Kunjal; Dimiglio, Linda A.; Mcfarland, Elizabeth J.; Silio, Margarita; Borkowsky, William; Seage, George R. III; Oleske, James M.; Geffner, Mitchell E.; for the International Maternal Pediatric and Adolescent AIDS Clinical Trials P219219C Study and the Pediatric HIV/AIDS Cohort Study

Published online ahead of print March 8, 2013
http://journals.lww.com/aidsonline/Abstract/pubishahead/Pubertal_onset_in_HIV_infected_children_in_the_era.98635.aspx
Despite success, there are still:

- 330,000 HIV infected children born each year
- 3.4 million HIV infected children worldwide including 10,000 perinatally HIV infected children in the US
- 1.5 million HIV infected pregnant women who deliver each year

All of whom will require treatment for life
Present Protocol Plans

- The network has 8 pending protocols and 22 protocols open to enrollment, 10 protocols closed to accrual and 14 protocols in development.

- Currently there are 3,113 participants to be enrolled excluding PROMISE and P1084s (948 at international sites and 2,165 at domestic sites which includes 1,916 on P1025 and P1074).

- PROMISE HS, BF, FF and P1084s enrolling 9,000 participants at domestic/international sites.
Upcoming Studies

- Thirteen new interventional protocols are planned to open by December 1, 2013 (P1078, P1110, P1081, P1101, P1091, P1104s, P1114, P1082, P1112, P1106, P1111, P1107 and P1092) requiring a total of 2,623 participants to be enrolled.
Priorities of Future Peds/Maternal Health Network

• Prevention of HIV acquisition
• Vaccines of high priority to these populations
• PK, safety of new drugs and formulations
• Co-infections, co-morbidities, and ART consequences
• Cure and/or functional cure
IMPAACT’s Scientific Committee Structure

Scientific Oversight Committee (SOC)

- HIV Prevention (Adolescent PREP, PMTCT)
  - P. Flynn
  - B. Chi

- HIV Treatment (PK, Safety, Formulations)
  - E. Abrams

- HIV/ARV Complications, Treatment of Co-infections and Co-morbidities
  - M. Levin

- Vaccines: Preventive and Therapeutic
  - C. Cunningham

- HIV Cure
  - D. Persaud

- Tuberculosis
  - A. Hesseling

- Hepatitis (HBV, HCV)
  - A. Kovacs
<table>
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<tr>
<th>IMPAAACT Priorities</th>
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<tr>
<td>1. Evaluation of CURE strategies in infants/children</td>
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<td>2. Evaluation of PMTCT strategies in breastfeeding HIV infected women</td>
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<tr>
<td>3. PK studies of new ARVs, TB, and hepatitis drugs in HIV infected pregnant women and children</td>
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<tr>
<td>4. Evaluation of HIV, TB and other vaccines in HIV infected children and pregnant women</td>
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<td>5. Evaluation of strategies to minimize metabolic and neurodevelopmental complications of HIV infection/ARV toxicities</td>
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Purpose of Meeting

- Review recent findings and new potential interventions relevant to the IMPAACT scientific agenda
- Review, update, prioritize, and obtain input and feedback on the scientific agenda and Network operational/financial issues
Future of the network

IMPAACT now needs to plan for the structure and scope of the scientific agenda for the future with an eye towards building an infectious disease center network.