PPMI Status Update

Ken Marek

PPMI Investigators Meeting
May 5, 2011
New York, NY
PD patient vignette

- 67 yo right headed WF in excellent general health
- History
  - 6 month history of poor tennis play
  - Note 1-2 years – mild constipation
  - 2 months intermittent R UE tremor while reading the newspaper, or if in stressful situation
- Exam
  - Mild R UE resting tremor
  - Reduced R arm swing
- PD DIAGNOSIS – 1 MONTH AGO

- “IF THE SYMPTOMS REMAIN AS THEY ARE NOW – I COULD DEAL WITH THIS”
PPMI-PD patient vignette

• 62 yo right headed WM lawyer in excellent general health
• History
  9 month history of slowly worsening R UE tremor
  6 month history of R shoulder pain
  3 months voice less reliable in public speaking
• Exam
  Mild R UE resting tremor
  Mild R bradykinesia
• PD DIAGNOSIS – 3 MONTH AGO

  “PPMI is attractive because no meds and I can do something that will help research”
PPMI-Control vignette

• 62 yo right headed WF school principal in excellent general health

• History
  Husband has PD for 17 years
  No previous participation in clinical research

• Exam
  Normal

• “PPMI is something I can do for my husband even if he can’t join the study”
Parkinson’s Progression Markers Initiative

Requirements for Biomarker Infrastructure

Specific Data Set
- Appropriate population (early stage PD and controls)
- Clinical (motor/non-motor) and imaging data
- Corresponding biologic samples (DNA, blood, CSF)

Standardization
- Uniform collection of data and samples
- Uniform storage of data and samples
- Strict quality control/quality assurance

Access/Sharing
- Data available to research community → data mining, hypothesis generation & testing
- Samples available for studies
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Establish a Specific Data Set

• Study governance - weekly meetings of the executive steering committee and monthly meetings of the full steering committee consisting of all study cores

• All study cores including clinical, imaging, biorepository, bioanalytics, stats, bioinformatics and genetics – established and working

• Twenty-one clinical sites (16 US, 5 EU)
  • Seventeen sites have been trained and activated (14US, 3EU)
  • All have fully executed contracts

• Recruitment of PD subjects and healthy controls

• PPMI subjects are successfully undergoing baseline and follow-up assessments including CSF collection
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PPMI Clinical Sites - 2011

- University of Rochester – Rochester NY
- Oregon Health Sciences University – Portland OR
- Baylor College of Medicine – Houston TX
- The Parkinson's Institute – Sunnyvale CA
- University of Pennsylvania – Philadelphia PA
- University of South Florida – Tampa FL
- University of California San Diego - San Diego CA
- Johns Hopkins University – Baltimore MD
- Emory University, School of Medicine – Atlanta GA
- Institute for Neurodegenerative Disorders - New Haven CT
- Boston University – Boston MA
- University of Alabama at Birmingham – Birmingham AL
- Northwestern University – Chicago IL
- Univ. of Wash & VA Puget Sound Health Care System – Seattle WA
- Cleveland Clinic – Cleveland OH
- Banner Research Institute- Phoenix AZ

- Innsbruck Medical University – Innsbruck Austria
- University of Napoli – Napoli Italy
- University of Tubingen – Tubingen Germany
- Paracelsus-Elena Klinik – Kassel Germany
- Imperial College of London – London England
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ENROLLMENT (through April, 2011)

E.1. Overall Enrollment

- Number Enrolled (N = 77)
- Expected Number Enrolled (N = 116)

Report generated on data submitted as of: 01APR2011
Recruitment – Early lessons learned

• It is do-able, but challenging to recruit at planned rate – 1 PD/month, 1 control/2months

• Multiple strategies to enhance recruitment are necessary

• Control recruitment may be easier than PD recruitment

• LPs are not a major deterrent for potential subjects

• Datscan availability has been a major challenge – DAT imaging as eligibility criteria not fully tested
Recruitment – Retention - moving forward

• Ongoing recruitment will require continued efforts

• Retention strategies are crucial
  • Continued participation in all assessments
  • Need for PD medications

• PPMI cumulative subject planning
  • Subject assessments
  • Subject data

• PPMI as an iterative study
  • Additional assessments/studies/cohorts
  • D/C assessments
Parkinson’s Progression Markers Initiative

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Requirements for Biomarker Infrastructure

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**PARKINSON’S PROGRESSION MARKERS INITIATIVE**

Play a Part in Parkinson’s Research
Standardization of data acquisition/analysis

- Manuals/SOPs for all data acquisition
- Training for biosample collection and shipping, UPDRS, neuropsych, imaging acquisition and data transfer, clinical data entry.
- Quality control of biosamples, imaging data
### Requirements for Biomarker Infrastructure

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Data/Biosample Access/Sharing

www.ppmi-info.org

• Biologic samples available via website

• Data available via website

• Ancillary study application through website
PPMI Study

PPMI Steering Committee

MJFF - Michael J. Fox Foundation for PD Research

ISAB - Industry Scientific Advisory Board

EAC - External Advisory Committee

CSOC - Clinical Study Oversight Committee

PPMI Sites

Clinical Core

Imaging Core

Biorepository

Bioinformatics Core

Bioanalytics Core

Genetics Core

Statistics Core

Biospecimen access

Data access

PPMI Sites

Play a Part in Parkinson's Research

PARKINSON'S PROGRESSION MARKERS INITIATIVE
### PPMI SC and Study Cores

<table>
<thead>
<tr>
<th>Cores</th>
<th>Details</th>
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<tr>
<td><strong>Steering Committee</strong></td>
<td>PI-K Marek, A Siderowf, C Tanner, D Jennings, K Kieburtz, W Poewe, B Mollenhauer, T Simuni, (core leaders, MJFF, ISAB), S Lasch</td>
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| **Clinical Coordination Core** | University of Rochester’s Clinical Trials Coordination Center  
• PI: Karl Kieburtz, Emily Flagg, Alice Rudolph, Cindy Casaceli |
| **Imaging Core**             | Institute for Neurodegenerative Disorders  
• PI: John Seibyl, Norbert Schuff, Susan Mendick |
| **Statistics Core**          | University of Iowa  
• PI: Chris Coffey, Qing Yang |
| **Bioinformatics Core**      | Laboratory of Neuroimaging (LONI) at UCLA  
• PI: Arthur Toga, Karen Crawford |
| **BioRepository**            | Coriell/BioRep  
• PI: Alison Ansbach,  
• Pasquale De Blasio, Michele Piovella |
| **Bioanalytics Core**        | University of Pennsylvania  
• PI: John Trojanowski, Les Shaw |
| **Genetics Core**            | National Institute on Aging/NIH  
• PI: Andy Singleton |
PPMI Committees

- Biologics
  - John Trojanowski
  - Les Shaw

- Imaging
  - John Seibyl

- Neuropsych / Neurobehavior
  - Andrew Siderowf

- Sleep
  - Wolfgang Oertel

- Genetics
  - Andrew Singleton

- Biospecimen review
  - Gene Johnson

- Data and publication
  - David Standaert

- Ancillary study
  - Carlie Tanner

- Recruitment and retention
  - Danna Jennings

- Website
  - Carlie Tanner

- CSOC
  - Ron Pfeiffer

- External advisory Board
  - Guy McKhann

- Patient Advisory Board
PPMI MJFF team

- Sohini Chowdhury, PPMI Overall Project Manager
- Jamie Eberling, PhD, Imaging Core and imaging SOPs
- Mark Frasier, PhD, Biologics (Biorepository selection; biologic collection SOPs, assay identification and optimization)
- Claire Meunier, Recruitment/Retention Strategies
- Debi Brooks, Industry partnership development, Recruitment/Retention Strategies
- Todd Sherer, PhD, MJFF VP, Research Programs
PPMI Funding Partners

PPMI is sponsored and partially funded by The Michael J. Fox Foundation for Parkinson’s Research. Other funding partners include a consortium of industry players, non-profit organizations and private individuals.
Early lessons

• We can do this

• PPMI will require a large cooperative efforts form all PD constituencies - there is interest worldwide

• PPMI must continue to be innovative – not a standard clinical study
Annual Investigators Meeting
May 5, 2011

AGENDA

7:30-8:30 am  Breakfast                           All

8:30-8:45 am  Welcome and Introductions          Marek, Sherer

8:45-9:15 am  PPMI Status Update                 Marek
              - Sites
              - Recruitment data
              - Enrollment
              - Taskforces, Committees, ISAB
              - Early lessons learned

9:15-9:45 am  Clinical Data Recap                Coffey, Kieburtz
              - Demographic Information
              - Collected data (motor, non-motor, neuropsych and neurobehavioral)
              - Data entry and future training

9:45-10:05 am Imaging Recap                      Seibyl, Schuff
              - Update and data on DaTSCAN, DTI and MRI
              - Future training

10:05-10:20  DAT Imaging Status                  Marek

10:20-10:40 am Break                             

10:40-11:10 am Biologics Recap                   Scutti, Frasier
              - Update on inventory/process
              - Data on received samples
              - Future training
              - Biospecimen request process/Biospecimen Review Committee (BRC)

11:10-11:45 am Planned PPMI Analyses             Coffey, Marek

11:45-12:10 pm Data Access Process               Toga, Crawford, Standaert

Lunch 12:15 -1:15       All

1:15-1:30 pm  Report from Industry Scientific Advisory Board  Grachev

1:30-2:10 pm  Assay Preparation                   Frasier, Shaw, Trojanowski
              - Alpha-synuclein Round Robin Study
              - CSF 24-hour collection

2:10-3:10 pm  Recruitment, Enrollment and Retention  Jennings, Meunier, All
              - Efforts to date, on-going and future plans and strategies
              - Recognition of sites excelling at recruitment

3:10-3:20 pm  Break                                

3:20-4:20 pm  Ancillary Studies                   Siderowf, Tanner
              - Process
              - Studies

4:20-4:50 pm  Future Plans                       Marek
              - Additional sites worldwide
              - Pre-motor cohorts
              - 2012 Annual Meeting dates

4:50-5:00 pm  Closing                            Marek