ITCR Annual PI Meeting Draft Agenda: May 27-28 2015

Agenda for Annual Meeting:

Notes taken during the meeting are available here

Day One

8:00 **Registration & Breakfast**

8:25 **Welcome** (Trey Ideker, UCSD; Juli Klemm, NCI)

8:35 U24 Genomic Projects Perspective**:** Brief presentations and Panel Discussion. Discussion topics to include engagement with users; considerations for transitioning to early prototype to broadly used software; obstacles to success; sustainability considerations

Moderator: Jerry Li, NCI

- Trinity: Transcriptome assembly for genetic and functional analysis of cancer – Aviv Regev, Brian Haas
- Cancer Genomics:Integrative and Scalable Solutions in R / Bioconductor – Martin Morgan
- NDEx – the Network Data Exchange A Network Commons for Biologists – Trey Ideker, Dexter Pratt
- Cloud Based Resource for Data Hosting, Visualization and Analysis Using UCSC Xena – David Haussler

10:00 *Break*

10:15 Keynote – Stephen Friend, President, Sage Bionetworks; Medical Technology Advisor, Apple Computer

11:15 **Industry Perspective and Discussion**

- Presentation by Dr. Jadwiga Bienkowska, Director, Computational Biology Precision Medicine, Pfizer Inc.
- Discussion on open source software, industry-academic collaborations, and translating novel informatics software to industry.

12:00 *Lunch (on-site)*

1:00 U24 Clinical Research Projects Perspective – Brief presentations and panel discussion. Discussion topics to include engagement with users; considerations for transitioning to early prototype to broadly used software; obstacles to success

Moderator: Yantian Zhang, NCI

- Advanced Development of TIES-Enhancing Access to Tissue for Cancer Research – Rebecca Crowley Jacobsen
- Informatics Tools for Optimized Imaging Biomarkers for Cancer Research & Discovery – Jayashree Kalpathy-Cramer
- Cancer Deep Phenotype Extraction from Electronic Medical Records – Guergana Savova
- Quantitative Image Informatics for Cancer Research (QIICR) – Andrey Fedorov
- Tools to Analyze Morphology and Spatially Mapped Molecular Data – Joel Saltz

2:30 *Break*

2:45 **Flash Talks:** New projects promoting posters

1. Computational Framework for Single-Cell Genomics of Tumors – Alexander Krasnitz
2. Informatics Links between Histological Features and Genetics in Cancer – Kun Huang
3. Advanced Development of an Open-source Platform for Web-based Integrative Digital Image Analysis in Cancer – David Gutman
4. GenePattern Notebooks for Cancer Research
5. Informatics Quantitative Radiomics System Decoding the Tumor Phenotype – John Quackenbush

3:15 **Poster Sessions and Demos**

- Posters by new projects; U01 and U24 invited but not “required”. **Poster dimensions are 48” (w) x 36” (h)**
- 10 Demos by U01 and U24 projects (excluding new awardees), two running simultaneously, 20 min each + 5 min transition

	Track 1 Demos	Track 2 Demos
3:15	Trinity – Transcriptome assembly for genetic and functional analysis of cancer	Advanced Development of TIES-Enhancing Access to Tissue for Cancer Research
3:40	Cancer Genomics:Integrative and Scalable Solutions in R / Bioconductor	Informatics Tools for Optimized Imaging Biomarkers for Cancer Research&Discovery
4:05	NDEx – the Network Data Exchange A Network Commons for Biologists	Cancer Deep Phenotype Extraction from Electronic Medical Records
4:30	Data Hosting, Visualization and Analysis Using UCSC Cancer Genomics Browser	Cloud Based Resource for Quantitative Image Informatics for Cancer Research (QIICR)
4:55	Software Tools For Regulatory Analysis of Large Cancer	Informatics to Enable Routine Personalized Cancer Therapy

Methylome Datasets

5:15 *Break*

6:00 *Dinner (on-site)*

Day Two

8:30 **The Future of ITCR – Juli Klemm, NCI**

8:45 **Panel Discussion:** U01/R01 Projects: Brief presentations and panel discussion. Sign up here. Discussion of challenge and success stories for early-stage development:

Moderator: Juli Klemm, NCI

- Interactive Informatics Resource for Research-Driven Cancer Proteomics – Bobbie-Jo Webb-Robertson
- Informatics Tools for High-throughput Analysis of Cancer Mutations – Michael Ryan, Rachel Karchin
- Software Tools for Regulatory Analysis of Large Cancer Methylome Datasets – Ben Berman
- BMEG – Biomedical Evidence Graph – Josh Stuart, Kyle Ellrott
- Developing Informatics Technologies to Model Cancer Gene Regulation – Peng Jiang
- MeV: Software for Next Generation Genomic Data Analysis – Yaoyu Wang, John Quackenbush

10:15 *Break*

10:45 **Poster Sessions and Demos**

- Posters by new projects; U01 and U24 invited but not “required”
- 12 Demos by U01 and U24 projects (excluding new awardees), two running simultaneously, 20 min each + 5 min transition

	Track 1 Demos	Track 2 Demos
10:45	Interactive Informatics Resource for Research-driven Cancer Proteomics	EMR Adverse Drug Event Detection for Pharmacovigilance
11:10	Informatics Tools for High-throughput Analysis of Cancer Mutations	Tools to Analyze Morphology and Spatially Mapped Molecular Data
11:35	OmniSearch – A semantic search tool for discovering microRNAs critical roles in human cancer	Advanced Development of an Open-source Platform for Web-based Integrative Digital Image Analysis in Cancer

12:00	MeV – Software for Next Generation Genomic Data Analysis

12:30 *Lunch (on-site)*

1:30 Poster sessions and demos (*continued*)

	Track 1 Demos	Track 2 Demos
1:30	ESCE – DISCOVERING MOLECULAR PROCESSES	Developing Informatics Technologies to Model Cancer Gene Regulation
1:55	Interpreting massive genomic data sets via summarization	caCDE-QA – A Quality Assurance Platform for Cancer Study Common Data Elements

2:30 Presentations of proposed collaborations, 5 min each

- Huang/Jiang – CBOE: A community-based bio-ontology evaluation framework
- Karchin/Bernstam Karchin-Meric-Bernstam Collaboration
- Karchin/Ideker – NDEx/CRAVAT-MuPIT Collaboration
- Jiang/Jacobsen/Savova
- Bernstam/Jacobsen/Savova
- Saltz/Fedorov/Kalpathy-Cramer – Digital Pathology: 3D Slicer, Ground Truth, Competitions
- Jingchun Zhu, Haussler Aggregating BRCA Data: Lessons and Visions
- Quackenbush/Aerts/Huang/Gutman/Cooper

3:30 Activities of the Training and Outreach Working Group – Rebecca Crowley Jacobsen

4:00 Closing remarks and adjourn