HEALTH SCIENCES RESEARCH COUNCIL
Notes and Action Items February 8, 2012

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<tr>
<th>TOPIC</th>
<th>DISCUSSION</th>
<th>ACTION ITEMS</th>
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<td>Call to Order</td>
<td>• Chair Susan Taylor called the meeting to order at 5:08 pm</td>
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| Chair Announcements       | • Dr Taylor opened by saying the last few meetings of the Research Council (RC) discussed various opportunities to take advantage of UCSD's considerable research strengths. Tonight’s meeting is a follow-up to the April 2011 RC meeting about UCSD’s Cyberinfrastructure. There were a lot of ideas at that meeting. The goal for this meeting is to have firm action items. She mentioned that Dr Trey Ideker, who was unable to attend today’s meeting, is working on a white paper on this topic.  
• There were introductions around the room.                                                                                                       |              |
| Lucila Ohno-Machado,     | • Dr Ohno-Machado said her presentation was an update from what she presented last April. Please click here to view presentation: [OhnoMachado_ResearchCouncilFeb8_2012.pdf](http://example.com/OhnoMachado_ResearchCouncilFeb8_2012.pdf)  
• Dr Ohno-Machado expressed concern that the genome is the most-identifiable data there is, and should be protected accordingly. She said her group is currently working on ways to protect this data via the infrastructure; thus allowing the PI to focus on the science, rather than data security. She said many are participating in the Clinical and Translational Science Award (CTSA), but at varying levels of sophistication. Vanderbilt University’s CTSA has been designated to coordinate all CTSAs data collection. Vanderbilt has the infrastructure for this, but not for analysis. She suggested the data could come to UCSD to be analyzed.  
• Mark Ellisman was present and mentioned a secure system he used years ago. He said, rather than each environment being secure, This system was set up such that the identifying data was retained by the generating facility, and only the de-identified data was migrated to various labs. This helps to solve the problem of collaboration between enterprises.  
• Dr Ohno-Machado said the current model is for the data to remain at the originating site. The model then consults with data from all sites and provides consolidated data to the requestor. Each site must be Health Insurance Portability and Accountability Act (HIPAA) Privacy-compliant.                                                                 |              |
| Associate Dean for       | • Dr Smarr provided an overview of the current hardware/software situation. Please click here to view presentation: [Research_Council_Smarr_020812_final.pdf](http://example.com/Research_Council_Smarr_020812_final.pdf)  
• Dr Smarr said the potential for using the fiber optics network at UCSD is the same as it was six years ago. He feels strongly we should be further along by now. He is looking forward to the action items from today’s meeting and is hopeful that the Health Sciences will soon be using the most data-supported |              |
| Informatics and Technology|                                                                                                                                                                                                            |              |
| Larry Smarr, Director,    |                                                                                                                                                                                                            |              |
| Calit2                    |                                                                                                                                                                                                            |              |
| **Michael Norman, Director, San Diego Supercomputer Center** | **HEALTH SCIENCES RESEARCH COUNCIL**  
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| · **infrastructure available. We could involve other organizations on the La Jolla Mesa as well. He said UCSD would be “on top of the world if we can do this”.**  
· **Dr Smarr showed a slide (his third and last on the attached presentation). He said we need to find a way to fill in data about the science being conducted at each point. He envisions a survey (perhaps a “trained student with a clipboard”) where each PI is interviewed on three key points: 1) What drives your science? 2) What is your grant number? and 3) Would you be an early adopter or a late follower in using UCSD’s currently available cyberinfrastructure?**  
· **Dr Smarr said they just discovered today that they can run Windows on GORDON. This is important as much of the science that should take advantage of GORDON’s power runs via Windows. He said the goal is to make it easier for each next instrument to take advantage of the power of UCSD’s cyberinfrastructure.**  
· **Please click here to view presentation: [UCSD RCI Update - Research Council 2-8-12.pdf](#)**  
· **The discussion continued during and after Dr Norman’s presentation, and included the following points:**  
· **Q: What projects is the library working on under the curation area?**  
· **A: There are several from all areas of campus, including astrophysics, geosciences, theater/electronic performance, and the Brain Observatory from Health Sciences.**  
· **Q: What is the library doing with this information?**  
· **A: Libraries have been curating for centuries. Currently they are testing web-based tools for curation and other archivists’ tools.**  
· **Dr Norman stressed that the San Diego Supercomputer Center (SDSC) can provide Cloud Storage for approximately one-third of amazon.com’s recently lowered price. Additionally, SDSC does not charge a network in-and-out fee, which amazon does charge, and which can add up quickly. He said that SDSC is currently working with Dr Ohno-Machado’s group to find a HIPPA-compliant Cloud.**  
· **Dr Norman agreed with Dr Smarr that the next step is to find the key people who can help to complete his plan of the systems on campus. Once that is well begun, the next step will be to complete the fiber optics network. The fiber optics network has been run across campus by Administrative Computing and** |
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Technology (ACT). However, each PI needs to request, and fund, the connection of his/her lab to that network. The point of connection, referred to as the ‘manhole’, is just outside each building at the SOM.

- Dr Norman said RCI is just beginning to involve some key PIs in this process. They need people who want to work in conjunction with RCI, not “just attach a machine to the data pipe”.
- Q: What about becoming a National Science Foundation (NSF) Center?
- A: We are working on that now. The NSF is interested in the science that drives each request. We are conducting interesting science at UCSD, much of it in the SOM. This will be important to our success.
- Dr Norman said the RCI business plan was prepared by campus and a 70%-PI/30%-campus cost ratio is currently under discussion. He said they are hoping a 50/50% split will ultimately be approved. The business plan assumes each beneficiary of the technology provide project-specific resources. The main campus is underwriting some infrastructure, i.e., power.
- Q: Will the SDSC provide boilerplate for data storage and analysis to aid PIs in their grant writing efforts?
- A: The RCI will provide boilerplate about the cyberinfrastructure at UCSD that will show what PIs have on this campus that is not available elsewhere.
- Q: What is really needed is an implementation team that can show the PI how using the RCI will add value to their project. The PI is going to want to know this before they dedicate grant funding to data in their request.
- A: In the SOM, you deal almost exclusively with research grants, so the “new and novel” an important factor. This RCI is new and novel.
- Another opportunity exists in the integration of local and public data. The integration can be expensive however, once it is purchase, many PIs will benefit.
- Q: Should mass spectrometry be on Triton?
- A: Yes, and it should be relatively simple to move this data to the SDSC. We have the platform in place. We need the pilot projects to make it real. All we need is to link the PI to the portal at the manhole.
- Q: Shouldn’t ACT integrate the internet in each lab with the fiber optic network?
- A: ACT sees its job as getting the fiber optic network to the manhole. Then it is the department’s responsibility to build the link, or “on ramp”, from the manhole to the lab. Campus is not writing a blank check. RCI plans an initiative this year to work with the departments to build these on ramps.
- This is a problem we have in common with other campuses. There is pressure on the NSF to help with the on ramps. UCSD is in much better shape to
receive these awards because we have already spent the money to run the optics to the buildings. The drive is on and the NSF is ready to help.

- Q: Are you saying that bridging the last ten to 100 meters from the manhole could be accomplished in a few weeks for a minimal cost?
- A: The cost is low; however the software to use the power of the SDSC also needs to be in place. SDSC needs pilot projects that will show other PIs just how important and powerful this is. Mass spectrometry is an excellent pilot.
- Q: What do we need for these pilots? The cost question needs to be formalized.
- A: We are doing it. We need an oversight committee to issue a call to the campus. We need to go to the PIs we know will benefit and get more pilot projects up and running. The PI will talk with a representative of the RCI, who will listen to the planned science and then come back with a data budget.
- Q: Dr Smarr asked which should be the first mass spectrometry lab converted.
- A: 1) Hillcrest has 20 years of data. It would be great to figure out how to automate and integrate that data. 2) Steve Briggs in Biology would be a good starting place. 3) Other names tossed out by the group included Nuno Bandeira, Phil Papadopoulos, Kelly Frazer, and Mark Adams from the J Craig Venter Institute.
- Q: Can we simplify this? Can we call one number if we want to get a building on the fiber optic network?
- A: ACT considers these requests to be equal with each of the 60,000 other requests they receive each day; which is great if your phone is out of order. ACT ran the fiber optic network to the buildings under the Next Generation Network (NGN). The PI needs to call ACT and request the ‘on ramp’. ACT will split the costs with the PI.
- Q: Exactly what is the average cost?
- A: $50,000
- Q: What happens to your data during funding gaps? How are you resolving the rental versus ownership issue?
- A: SDSC has both rent and own options. Also, NSF permits PIs to include funding to protect data after the end of a grant.
- The Council members said that the business plan being determined now must make sense to both the campus and the PI. The plan described at this meeting is not going to entice PIs to use this technology. PIs need to be able to understand the value to “me and my research”; why should I do this?

### Adjournment

- The meeting was adjourned at 6:40 p.m.

### NEXT MEETINGS

**March Meeting – NOTE CHANGE OF DATE AND VENUE:**

Dean’s Large Conference
<table>
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<tr>
<th>Date</th>
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<th>Topic</th>
<th>Speakers</th>
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<tr>
<td>March 21, 2012</td>
<td>5:00 to 6:15 pm</td>
<td>Animal Imaging Core – SCRM Building</td>
<td>William Bradley, Lawrence Goldstein, Edward Holmes, and Roger Tsien</td>
<td>Room, BSB1320</td>
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<tr>
<td>April 11, 2012</td>
<td>5:00 to 6:15 pm</td>
<td>A New Presence on the Mesa (Genotyping and Phenotyping)</td>
<td>J Craig Venter and Karen Nelson</td>
<td>Dean’s Large Conference Room, BSB1320</td>
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