

A2CPS – U54

Acute to Chronic Pain Signatures Program

DIRC

Data Integration and Resource Center

Writing Starter's Gunshot

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Baylor College of Medicine

Writing Meeting October 1, 2018

Outline For Today's Call

- Introductions
- Organization of the group
- Brief logistics for sharing
- Proposal Preparation Plan and Logistics
 - Short timeframe, critical path
 - Who is doing what
 - Parts that are needed
- Timeline for proposal preparation
- To Do List for 10/3

- Detailed logistics for sharing for your reference

People, Expertise

Name	email	Institution	DIRC Group
Anticevic, Alan	alan.anticevic@yale.edu	Yale	
DeBenedet-Murgo, Andrea	andrea.debenedet@yale.edu	Yale	
Fisch, Kathleen (Katie)	kfisch@ucsd.edu	UCSD	DCC
Gelernter, Joel	joel.gelernter@yale.edu	Yale	SOC
Gerstein, Mark	mark@gersteinlab.org	Yale	DIAC
Jackson, Andrew R	andrewj@bcm.edu	BCM	DCC, CORE
Laurent, Louise	louise.laurent@gmail.com	UCSD	
Milosavljevic, Aleksandar	amilosav@bcm.edu	BCM	DCC, CORE
Pico, Alex	alex.pico@gladstone.ucsf.edu	UCSF	SOC
Polimanti, Renato	renato.polimanti@yale.edu	Yale	SOC
Quehenberger, Oswald (Ossie)	oquehenberger@ucsd.edu	UCSD	DCC
Roth, Matt	mattr@bcm.edu	BCM	DCC, CORE
Rozowsky, Joel	joel.rozowsky@yale.edu	Yale	DIAC
Subramanian, Sai Lakshmi	SaiLakshmi.Subramanian@bcm.edu	BCM	DCC, CORE
Worley, Kim C.	kworley@bcm.edu	BCM	DCC, CORE

Contributors

Research Sections	Contributors	BCM Coord
DIRC – Overall	Aleks Milosavljevic	Aleks M.
SOC	Joel Gelernter Renato Poimanti Alan Anticevic Alex Pico	Kim Worley
DIAC	Mark Gerstein Joel Rozowsky	Kim Worley
DCC	Aleks Milosavljevic Katie Fisch Ossie Quehenberger	Kim Worley
Admin Core	Aleks Milosavljevic	Matt Roth

BCM Coordinators

- Elke Norwig-Eastaugh – admin
 - elken@bcm.edu
 - Collecting administrative contacts
 - Communicating required forms
- Kim Worley – research sections
 - kworley@bcm.edu
 - Collecting biosketches / descriptions


Logistics

- Genboree A2CPS Project
 - Instructions
- Google Docs
 - Concurrent editing, quick revisions
- Then MSWord
 - Allows references, need to check out & return
- Include references as <PMID>
- Figures don't work well in Google Docs
 - Upload Figures individually to High Quality Figure
 - Name with section, figure letter, version (SOC figure A version 2, DCC figure C version 1)

Organization

- See Participants and Roles
 - List of people, emails, and brief descriptions
 - Add administrative contacts for each group
 - Edit descriptions of yourself
- NIH Biosketches
 - Upload yours here by 10/3
- See Proposal writing telcons for this document

Genboree Home Projects Help

 A2CPS (Chronic Pain)

Overview Activity Documents Forums Settings

Forums »

Discussion and Docs for Prep

Forum to share proposal text, figures, etc.

SUBJECT ▾

- Proposed BioAssays
- Proposal writing telcons: minutes & related docs
- Participants and Roles
- NIH Biosketches
- Link to Google and MSWord docs for DIRC-SOC
- Link to Google and MsWord docs for DIRC-Overall
- Link to Google and MsWord docs for DIRC-DIAC
- Link to Google and MsWord docs for DIRC-DCC
- Link to Google and MsWord docs for DIRC-Admin Core
- High Quality Figures
- DMRR Supplement (2018-19)
- DMRR proposal (2013-2018)
- A2CP RFAs

(1-13/13) | Per page: 25, 50, 100, 200

A2CPS Genboree Forums

- NIH Biosketches
- Google Doc Links
 - DIRC – Overall
 - DIRC – DCC
 - DIRC – SOC
 - DIRC – DIAC
 - DIRC – Admin Core
- High Quality Figures

Proposal Discussion

- Working through DIRC – Overall document to discuss coordination
- <https://docs.google.com/document/d/1d2NUxacjYle0Pu8gmxFwtXkDrx0E4E-f6hf25HUzKVY/edit>
- Aleks (DIRC – Overall, SOC, DCC, CORE)
- Joel R. (DIAC)

Google doc for DIRC-Overall

Title: Data Integration and Resource Center (DIRC) for the Acute to Chronic Pain Signatures (A2CPS) Program

SIGNIFICANCE

Problem to be addressed by A2CPS program

Opioid addiction epidemic. Connection to chronic pain. Candidate univariate biomarkers combined into biosignatures of A2CP transition (A2CPS) susceptibility or resilience as a starting point toward (1) development of candidate actionable biomarkers (univariate or multivariate signatures); (2) understanding mechanisms; (3) identifying targets for the development of personal prevention strategies. A2CPS.

A2CPS program and DIRC's role within it

Figure: Interactions of DIRC with other A2CPS components

Scientific Premise for association studies and integrative analyses

1. Genetic and epigenetic biosignatures
2. Omics biosignatures (tissue, blood) considered independently and jointly with genetic/epigenetic markers.
3. Phenotypes and brain imaging
4. Integrative analyses (possibly in the context of EHR, questionnaire, and other data and external data) in network/pathway context to combine individual biomarkers into multivariate signatures

Selection of candidate biomarkers for validation? (Not explicitly stated requirement for DIRC, but may help?)

Justify selection of candidate biosignatures to supplement “ome-wide” association studies:

- prior studies, hypotheses (surgical, musculo-skeletal injury)
- clinical utility (surgical, musculo-skeletal injury)

Summary table (two sections: surgical, musculo-skeletal injury): Rows: layers of information (SNPs, epigenetics, omics, imaging, phenotypes); Columns: 1:information type; 2: biomarkers selected for validation; 3: rationale for each selected biomarker

What will be accomplished if goals achieved

1. Biosignatures of A2CP transition (A2CPS) susceptibility or resilience
2. Leads toward understanding mechanisms of susceptibility to chronic pain

3. Candidate targets for the development of personal prevention strategies

INNOVATION

Highlights of SOC, DCC, DIAC innovations from individual sections and how they will work together to achieve A2CPS aims.

RESEARCH STRATEGY

DIRC organization

Figure: DIRC organization, key personnel Qualifications of key personnel.

How will key personnel interact to achieve the overall aims? Record of prior collaboration and consortium participation.

SOC Aim

SOC 12 pages compressed with emphasis on interactions within DIRC and A2CPS toward accomplishing project goals

DCC Aim

DCC 12 pages compressed with emphasis on interactions within DIRC and A2CPS toward accomplishing project goals

DIAC Aim

DIAC 12 pages compressed with emphasis on interactions within DIRC and A2CPS toward accomplishing project goals

Admin Aim

Admin 6 pages compressed with emphasis on interactions within DIRC and A2CPS toward accomplishing project goals

Milestones and Timeline

Notes: From this: <https://grants.nih.gov/grants/guide/rfa-files/RFA-RM-18-031.html>

Will need to coordinate with other parts

SOC:

1. Develop A2CPS Program Portal

A community-wide nexus for protocols, assay and data standards, raw and processed data, data pipelines, and other resources generated by the A2CPS consortium.

UCSD - Katie.

2. Data Analysis Outreach to Scientific Community

Demonstrate utility of the data by performing analyses, developing use-cases, discovering biosignatures etc. using uconsortium data, robust tools that empower both naïve and experienced investigators to query, integrate, analyze, and model the data.

Yale - Joel G, Renato P.

3. Develop Workshops and Community Outreach Strategy

Develop workshops with the Admin Core and implement a community outreach strategy to inform the research community of the accomplishments of the program and disseminate information about the community resources and data generated by the program.

Kim, Matt, with input from Joel G, Renato.

DCC

1.Ensure A2CPS-generated data and metadata have standardized formats and associated quality metrics (both raw and processed data)

Ensure A2CPS-generated data and metadata have standardized formats and associated quality metrics. Metadata types - metabolomics lipidomics, proteomics, imaging.

EHR data types.

Quality metrics - refer to DIAC.

2.Implement data flow, data portal and deploy web-accessible tools for reproducible analyses

Provide data portal infrastructure.

Use case (data flow, tools aligned with integrative analyses - DIAC) - aligned with scientific premise
-from Yale

3.Make A2CPS data available to community using resources obtained through NIH Data Commons to ensure data will be FAIR and accessible via cloud-based data storage and computing and archive raw and processed datasets generated by A2CPS Consortium

Dockerization - Katie.

Tools - metabolomics, lipidomics, proteomics, imaging, exRNA-seq. Archive raw and processed datasets generated

by the A2CPS Consortium.

Facilitate data use: provide user-friendly access to consortium data, identify or generate robust tools to enable both naïve and experienced investigators to query, integrate, analyze, and model the data.

Make the A2CPS data available to the community using resources obtained through the NIH Data Commons (<https://commonfund.nih.gov/commons>) to ensure the data will be FAIR (Findable, Accessible, Interoperable, and Reusable) and accessible via cloud based data storage and computing.

DIAC

1. Work with A2CPS consortium PIs to analyze the data generated

Work with A2CPS consortium PD(s)/PI(s) to analyze the data generated.

DIAC

1. Work with A2CPS consortium PIs to analyze the data generated

Work with A2CPS consortium PD(s)/PI(s) to analyze the data generated.

2. Develop analysis strategies to integrate the A2CPS datasets in synergistic ways with other relevant datasets

Work with A2CPS consortium PD(s)/PI(s) to develop analysis strategies to integrate the A2CPS datasets in synergistic ways with other relevant datasets.

3. Share useful information and insights about these data with the broader biomedical research community

Facilitate data use: provide user-friendly access to consortium data, identify or generate robust tools to enable both naïve and experienced investigators to query, integrate, analyze, and model the data.

Work with A2CPS consortium PD(s)/PI(s) to share useful information and insights about these data with the broader biomedical research community.

Admin CORE

1. Facilitate communication across the A2CPS consortium and among the DIRC components

Coordinate A2CPS consortium activities by organizing steering committee meetings, workgroup meetings, and other awardee meetings.

2. Organize steering committee meetings, workgroup meetings and other awardee meetings

3. Provide quarterly updates to the NIH staff

Timeline for Proposal Prep

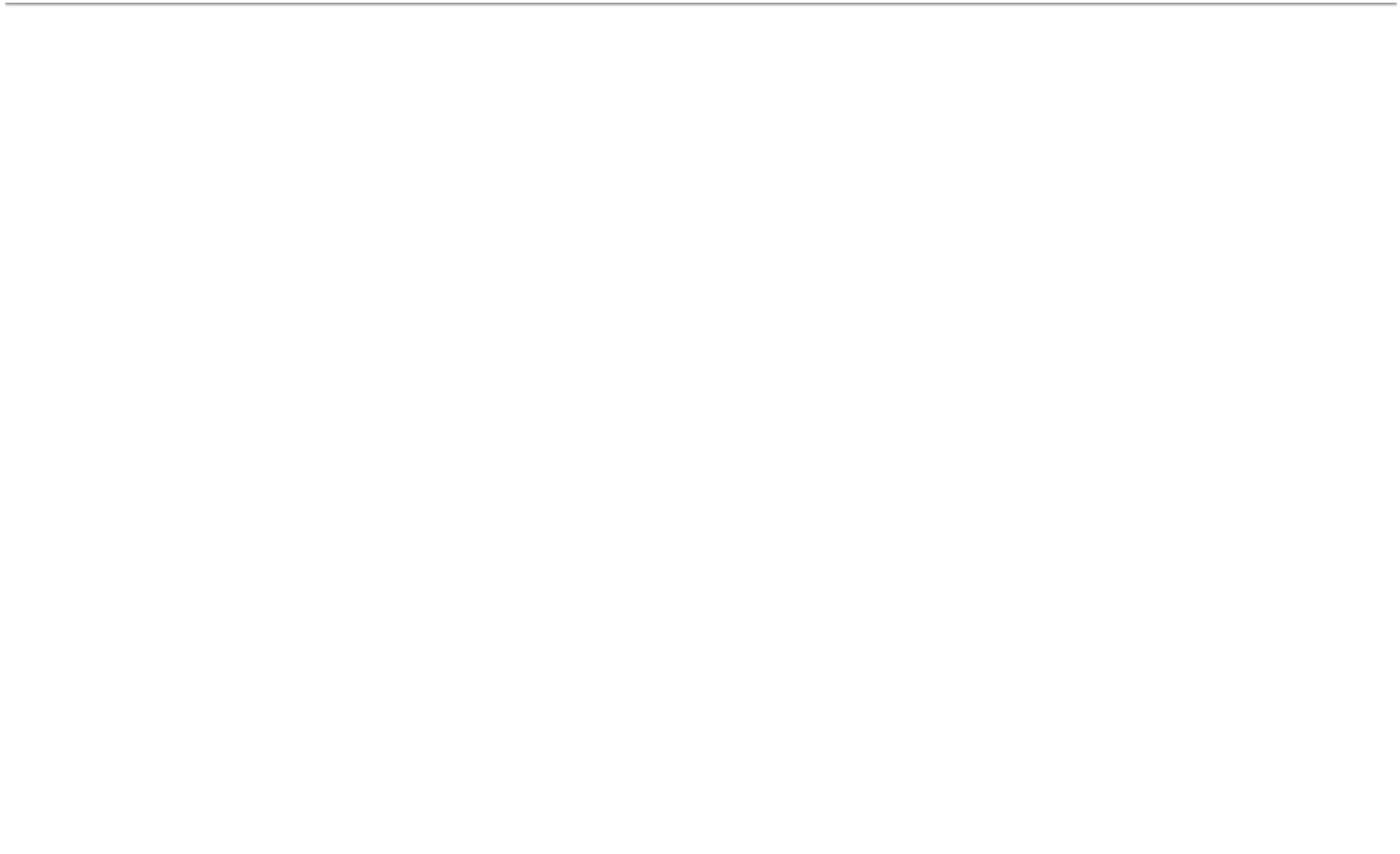
October 2018



Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
1 Call Noon CDT	2	3 Finalized Budget NIH Biosketches	4 Proposed Figures list & illustrated ideas	5	6	7
8 Call Noon CDT	9	10 Subcontracts DUE Budgets Institutional Signatures Biosketches Budget justification Facilities and Resources Timelines Assurances	11 Letters of Support DUE Refined Figures	12	13	14
15 Call Noon CDT Final Text & Figures DUE Research sections Figures References Timelines	16	17	18	19	20	21

To Do List – Due 10/3 or 10/4

- NIH Biosketch modified for this proposal
- Administrative contacts
 - Elke will send list of required forms by email
- Budgets
- Proposed Figures (list, drafts)
- Text and figure contribution
 - Short personal description and PMIDs for relevant previous work and roles




Genboree A2CPS Project

- Getting access
 - Get an account at: <http://www.genboree.org/java-bin/login.jsp>
 - After you have an account, sign in (with the login and password you created) to Genboree Commons at <http://genboree.org/theCommons/login>
 - Note the different address
 - This makes it possible to add you to a project, but we still need to know you have access so:
 - Email Matt (mattr@bcm.edu) or Kim (kworley@bcm.edu) to be added to the A2CPS project
- Tabs and Use
 - Overview – who is on the list
 - Documents – share referenced documents
 - **Forums** – this is where to share discuss and share documents for the proposal preparation

Forum for Docs & Discussion

Genboree Home Projects Help Logged in as **kworley** My account Sign out

 **A2CPS (Chronic Pain)** Search: A2CPS (Chronic Pain)

Overview Activity Documents **Forums** Settings

Forums »

Discussion and Docs for Prep [New conversation](#) [Watch](#)

Forum to share proposal text, figures, etc.

SUBJECT	AUTHOR	CREATED	REPLIES	LAST MESSAGE
Proposal writing telcons: minutes & related docs	roth, matt	09/21/2018 05:54 pm	0	
NIH Biosketches	roth, matt	09/21/2018 06:02 pm	1	Added by Worley, Kim 1 day ago
Link to Google doc for DIRC-SOC	roth, matt	09/21/2018		
Link to Google doc for DIRC-Overall	roth, matt	09/21/2018		
Link to Google doc for DIRC-DIAC	roth, matt	09/21/2018		
Link to Google doc for DIRC-DCC	roth, matt	09/21/2018		
Link to Google doc for DIRC-Admin Core	roth, matt	09/21/2018		
DMRR Supplement (2018-19)	roth, matt	09/19/2018		
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A2CP RFAs	roth, matt	09/20/2018		

(1-10/10) | Per page: 25, 50, 100, 200

Google doc for DIRC-Overall

File Edit View Insert Format Tools Add-ons Help Last edit was made 1...

100% Normal text Arial 11 B I U A

Outline

- A2CPS program and ...
- Scientific Premise fo...
- Selection of candida...
- What will be accomp...
- INNOVATION
- SOC Aim
- DCC Aim
- DIAC Aim
- Milestones and Time...
- Notes: From this: htt...
- Will need to coordin...
- SOC:
- DCC
- DIAC

Google doc for DIRC-Overall

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Edit NIH Biosketch Thread To Post Your Biosketch

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NIH Biosketches [★ Unwatch](#) [Quote](#) [Edit](#) [Delete](#)

Added by *roth, matt* 9 days ago

Please this thread to post your biosketches. I've attach one for me and for Aleks (not yet updated for A2CP). Matt

[Roth_NIH_Biosketch.pdf](#) (101.6 KB) [Milosavljevic_NIH_Biosketch.pdf](#) (174.1 KB)

Replies

RE: NIH Biosketches - Added by Worley, Kim 1 day ago

Updated for A2CPS proposal

[Kim_C_Worley_Bioksetch_092018_A2CPS_DIRC.pdf](#) (87.3 KB)

[Reply](#)

Use Edit, and no email notification is sent.

Use Reply, and Genboree sends an email notification

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 - Or into a different google doc to cross reference Figures

