

Cell and Developmental Biology (CDEV) Subgroup Business Meeting

SMB 2024

Seoul, Korea

July 2, 2024



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Committee
Member

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Business meeting agenda

- CDEV subgroup description + expectations
- Subgroup accounts, leadership, + membership
- Subgroup activities (at + beyond the SMB Annual Meeting)
- Additional time for discussion

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SMB CDEV description

The **Subgroup on Cell and Developmental Biology** brings together interdisciplinary scientists with shared and complementary interests in the mathematics of multiscale cellular dynamics. Researchers in this subgroup work on questions related to how cells make decisions in development, how gene regulatory networks influence cell fate, how internal filaments affect cell shape and intracellular dynamics, how cells interact with external signals, and how tissues and patterns form robustly during development, among many other questions. Cell and developmental biology has long proven a fertile ground for mathematical modeling and, with recent experimental advances, it is becoming an increasingly quantitative discipline. We are now able to constrain and quantify mathematical models of cellular dynamics, growing the potential for models to be used in a predictive way. The objective of this subgroup is to accelerate these efforts, encourage the interactions of researchers across disciplines and biological scales, and support the use of mathematical modeling as part of the ‘toolkit’ of cell and developmental biology.

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SMB subgroup expectations

- Organize a mini-symposium at the SMB Annual Meeting
- Conduct a business meeting at the SMB Annual Meeting
- Maintain a membership of at least 50 members
- Write an annual report on subgroup activities
- Provide a periodic “state of the field” publication or thematic special issue in the SMB’s flagship journal, the *Bulletin of Mathematical Biology*
- Manage funding of \$1500 per year for subgroup activities

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How to find us

- Twitter/X: @SMBdevBio
- Website: <https://smb-celldevbio.github.io>
- Email: smbcelldevbio@gmail.com
- Google group: https://groups.google.com/g/smb_devbio_subgroup

Our Twitter/X
account:



Our website:



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CDEV subgroup officers



Alexandria
Volkening
Chair
(Purdue
University, USA)



Alessandra
Bonfanti
Secretary
(Politecnico di
Milano, Italy)



Maria Abou Chakra
**Committee
member**
(University of
Toronto, Canada)



Carina Dunlop
**Committee
member**
(University of
Surrey, UK)



Tian Hong
Committee member
(University of
Tennessee, Knoxville,
USA)

Current CDEV membership

- As of summer 2024, we have **177 members**. This is about a 12% increase from summer 2023.
- Members must select their group membership via their SMB account.
- We maintain an *smb_devbio_subgroup* listserv on Google groups, and most subgroup communication happens via this listserv (**351 members**)
- Please let us know if you would like to be on the listserv and are not currently receiving our (roughly) monthly newsletter.

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CDEV activities at the Annual Meeting

Business meeting

About 70 scientists are presenting in the CDEV track, across minisymposia (8 sessions, several with 2 parts), contributed talks (5 sessions), and posters (5 posters)

Special thanks to those who organized CDEV-track minisymposia!

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CDEV activities: Overview

New activities for 2023–2024 based on feedback at SMB2023:

- Mentored mock interview program
- Virtual mini-conference “Cell and Development Festival Week”
- Small travel and childcare grant program

Continued activities from past years:

- Blog post interview series
- Discussion group on development and regeneration
- Twitter/X presence

Our website:



New CDEV activities: Mock interview program

- Based on feedback during the SMB2023 business meeting, we started a mock interview program to help prepare students and postdocs for academic interview programs.
- In fall 2023, we invited interviewees/mentees to sign up and then solicited interviewers/mentors.
- 7 mentees and 5 mentors participated.
- We matched mentors and mentees and encouraged mentees to reach out ahead of their 1-hour Zoom meeting to discuss what they were looking for.
- Some mentees elected mock interviews, while others used the time to ask questions about what to expect at in-person interviews or to ask for advice on application materials.

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New CDEV activities: Small grant program

- Based on feedback at our SMB2023 business meeting, we held a small grant program for travel or childcare needs in spring 2024.
- We received 10 applications and awarded 3 grants for \$350.

Application: SMB CDEV Travel Grants

The Cell and Developmental Biology (CDEV) subgroup of the Society for Mathematical Biology (SMB) is inviting applications from students (undergraduate or graduate) and postdoctoral fellows for a few travel or childcare grants. We anticipate awards will be between \$250 and \$500. These grants can support travel to the 2024 SMB Annual Meeting, to visit a collaborator in a different discipline (i.e., a biologist visiting a mathematician, or a mathematician visiting a biologist), or to attend another conference in which interdisciplinary interactions will take place. You do not need to be a SMB or CDEV member to receive this award. **Travel must occur before September 1, 2024 to be eligible for consideration.**

Applications are due May 10, 2024.

Please email us at smbcelldevbio@gmail.com if you have any questions.

Your CDEV Subgroup officers,

Alessandra, Alexandria, Carina, Maria, and Tian

New CDEV activities: Virtual mini-conference

Our first virtual mini-conference “Cell and Development Festival Week” took place in March 2024:

- about 3 hours of programming per day for 4 days
- featured about 25 speakers
- over 150 registrants, *spanning 5 continents*
- most days featured 1 minisymposium, 1 plenary talk, & 1 panel
- panels & plenaries combined prof. development & research



New CDEV activities: Virtual mini-conference

Special thank you to all of the speakers, panelists, and participants at
Cell and Development Festival Week!

- Session 1: Veronica Ciocanel, Amanda Alexander, Tracy Stepien, Leah Edelstein-Keshet
- Session 2: Marc Roussel, Bradly Alicea, Elizabeth Trofimenkoff, Robyn Shuttleworth, Steven ten Holder
- Session 3: Ander Movilla Miangolarra, Adam MacLean, Shibashis Paul, Ruth Baker
- Session 4: Raj Hossein, Eleni Papafilippou, Diana Khoromskaia, Katerina Kaouri, Thomas Woolley
- Session 5: Gonca Erdemci-Tandogan, Andrew Krause, Maria Abou Chakra, Nika Shakiba, Golnaz Karoubi, David Romero Torres

Most presentations are recorded and available at:



Continued CDEV activities

Blog posts:

- Approximately once a quarter, shared through email and Twitter:
- Featured researchers for summer 2023–2024:
 - Dr. Robyn Shuttleworth (Altos Labs)
 - Hannah Scanlon (Duke University)
 - Dr. Duncan Martinson (Isaac Newton Institute)
 - Dr. Evan Curcio (City University of New York)
- We encourage interview nominations (including self nominations) of folks at all career stages
- We encourage blog posts by folks on the job market
- See our website:



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Continued CDEV activities

- Continuing to support Maria Abou Chakra's biweekly discussion group "Modeling cell development and regeneration"
- Contact Maria to join the listserv and go to our website to sign up for the Slack channel for this!

SMB Subgroup on Cell and Developmental Biology

ABOUT BLOG INITIATIVES JOB POSTINGS CONTACT

Subgroup Initiatives

Discussion Group: Modeling Cell Development and Regeneration

Dr. Maria Abou Chakra has been running a discussion group on "Modeling Cell development and Regeneration". The goal of this group is to explore current models in cell development and regeneration, and discuss challenges, emerging questions and solutions relating to this topic. It also aims to build a community of researchers with shared interests. We warmly recommend this group; you can sign up [here](#).



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Continued CDEV activities: Twitter/X presence

Twitter/X presence:

- Tag *@SMBdevBio* with your conference announcements, new preprints and publications, graduations or new positions, etc. and we'll amplify your announcement.
- 955 followers as of June 2024 (up ~11% in the last year)
- See our Twitter/X account:



We also email our Google-groups listserv about once a month and are happy to share conference & job announcements, etc.

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Elections: 2024

- Want to get involved in CDEV? We'll be holding elections **for all officer positions** in September 2024.
- Reach out to any current officer if you have questions about what these positions entail or are interested in running.
- Our subgroup has a detailed Google Drive of materials for new officers to make the job easier and the transition smooth.
- If you would like to *nominate* someone to serve in a CDEV position, please email smbcelldevbio@gmail.com. (We'll get their permission before putting them on the ballot — we encourage nominations!)

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Suggestions?

- Tutorials?
- Online mini-workshop?
- CDEV meetups at other conferences?
- Special issues in the *Bulletin of Mathematical Biology*?
- LinkedIn, Mastodon, or Instagram presence?
- Virtual poster contest? (Not enough interest to run in March)
- Interviews or blog posts?
 - We welcome nominations (including self-nominations) for highlighted researchers!
- Other ways to build community?



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Thank you!

