

Pediatric Cancer Nanocourse Curriculum

August 7-11, 2023

cc-TDI laboratory, 9025 NE Von Neumann Drive Ste 110, Hillsboro OR 97006

Registration: <https://cc-tdi.kindful.com/register/2023-pediatric-cancer-nanocourse>

Videocall link for speakers only: <https://meet.google.com/dua-qreo-xum>

A [nanocourse](#) is a dynamic approach to teaching advanced scientific topics in a condensed fashion. Put simply: our nanocourse is a *crash* course in pediatric cancer. **The goal of the Pediatric Cancer Nanocourse is to train members of the public to act as informed liaisons between childhood cancer researchers and the community.** Features of the course will include:

- A didactic overview of childhood cancer treatment, biology, pathology, and clinical trials
- An introduction to the scientific research process: how research works, what barriers exist, and how to overcome challenges and make progress on rare childhood cancers
- Lectures on **Wilms' tumors** and **Rhabdomyosarcoma**
- Daily mentorship and hands-on opportunities to shadow our research scientists in the laboratory
- A self-selected group research project, with the opportunity to collaborate with fellow participants
- The opportunity to build network of informed and empowered advocates who can drive the cure of rare cancers
- The primary mission: build a [roadmap](#) to a cure for Wilms' tumor, or Rhabdomyosarcoma

Previous course members have had their findings published in the [peer-reviewed scientific literature](#). There is no cost to attend the course, but participants are required to cover their own travel, [lodging](#), and meals. This is an immersive hands on experience -- virtual attendance by videoconference is not possible.

Participants:

Undisclosed (n=12)

Michael Ortiz MD (MKSCC)
Nicholas Cost MD (UC-Denver) *virtual*
Sonja Chen MD (Nationwide Children's)

Speakers:

Cara Morin MD PhD (Cincinnati Children's)
Cody Stiverson (Artisan)
Brzezinski MD (Toronto SickKids) *virtual*
Joel Michalek PhD (UTHSCSA)
Lou Stancato PhD (Eli Lilly)
Mark Kieran (DayOne Biopharma)
Cody Stiverson (Artisan)

Andrew Woods (cc-TDI)
Charles Keller MD (cc-TDI)
Kiyo Nagamori (cc-TDI)
Shefali Chauhan PhD (cc-TDI)
Victoria Allanson (cc-TDI)
Samuel Rassmussen (cc-TDI)

Nancourse Itinerary and Curriculum

Mon Aug 7	
8:30 am	Welcome & Introductions; Lab Tour <i>Erika Ellis and Charles Keller</i>
9:00 am	Overview & Biology Primer <i>Charles Keller</i>
09:30 am	Project Introduction & Team Organization <i>Andrew Woods</i>
9:45 am	Coffee break and nibbles provided by tba
10:00 am	genetics and epigenetics of Wilms' tumor <i>Jack Brzezinski</i>
11:00 pm	bench to bedside drug development for Wilms' tumor <i>Michael Ortiz</i>
12:00 pm	Lunch and Learn: imaging as a surrogate for disease free survival in clinical trials: notable triumphs and mentionable pitfalls <i>Cara Morin</i>
1:00 pm	Rhabdomyosarcoma Summary <i>Charles Keller</i>
2:00 pm	pediatric drug development from the pharma R&D point of view <i>Lou Stancato</i>
3:00 pm	Lab Practical pt 1 –Drug Screen Creation
4:00 pm	basics and new innovations in clinical trials for small disease populations <i>Joel Michalek</i>
5:00 pm	Adjourn to hotel

6:00 pm	Speaker dinners (course participants can sign up for speaker tables)
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Tue Aug 8	
9:00 am	managing the natural history of Wilms' tumor from a surgeon's point of view <i>Nick Cost</i>
10:00 am	live microscope presentation on the rhabdomyosarcoma tumor environment and its variations under the microscope <i>Sonja Chen</i>
12:00 pm	Lunch and Learn: Raiden Science Foundation <i>Tommy Pham (Raiden's dad)</i> with Chris Andon
1:00 pm	Artisan Biopharma (a public benefit corporation pediatric cancer biopharma) <i>Cody Stiverson</i>
2:00 pm	pediatric drug development from the biopharma clinical trial research point of view <i>Mark Kieran</i>
3:00 - 5:00 pm	Brainstorming & Strategy Session
6:00 pm	Group dinner at tba

Wed Aug 9	
9:00 am	Speed Science with the cc-TDI Team
10:00 am	Coffee break and nibbles
10:15 am	Group work session
12:00 pm	Lunch on your own
3:00 - 5:00 pm	Group work session
6:00 pm	dinner on own

Thu Aug 10	
9:00 am - 12:00 pm	Group work session
12:00 pm	Lunch on your own
2:00 pm	Lab Practical pt 2 – Interpreting and Analyzing Results <i>Andy Woods</i>
3:00 - 5:00 pm	Group work session and powerpoint presentation preparation
6:00 pm	Group dinner at tba

Fri Aug 11	
9:00 am	<i>Ask me anything!</i> session with Charles and cc-TDI team
10:00 am - 12:00 pm	Group work session
12:00 pm	Lunch on your own
3:00 - 5:00 pm	Group work session and powerpoint presentation preparation
4:00 am	Nanocourse Conclusion & Debrief (how we make it better!)

A Note to Participants:

Dear Participants, Thank you for registering for the 2022 Pediatric Cancer Nanocourse! Please be sure to reserve your hotel. The Aloft Hotel below is the most practical overall choice. Sincerely, Charles

direct: (801) 232-8038 | charles@cc-TDI.org | <http://cc-TDI.org>

Location of the Nanocourse

cc-TDI laboratory
9025 NE Von Neumann Drive Ste 110
Hillsboro OR 97006

Hotel Accommodations (selected)

The closest (immediately adjacent to the lab):

River's Edge Hotel & Spa, 455 SW Hamilton Ct,
Portland, OR 97239, Tel: (503) 802-5800

Aloft Hotel

1705 NE Amberglen Parkway, Hillsboro, OR 97006.
The cc-TDI special rate is \$149/night. To book, you can
contact Jay Kilani at Aloft
(JALkilani@peachtreehotelgroup.com).

The grooviest, downtown; check on hotels.com:
Hotel Zags (previously Hotel Modera)
515 SW Clay St, Portland, OR 97201, Tel: (503) 484-1084

A good near-downtown value, and very peaceful but a
25 minute drive:

Air and Ground Travel PDX is served by most major airlines.

About Portland Situated between the Columbia River Gorge and the Oregon Coast beaches, the greater Portland area is home to great restaurants and diverse cultural attractions and events. Our lab is 10 minutes east of Portland in the sister city, Beaverton, where Nike headquarters are.

Selected Pre-Reading & Media (required):

Epithelioid Sarcoma Roadmap: <https://www.frontiersin.org/articles/10.3389/fonc.2015.00186/full>, or
Hepatoblastoma Roadmap: <https://www.frontiersin.org/articles/10.3389/fped.2016.00022/full>

Selected Pre-Reading & Media (not required):

I have mainly one video to suggest (Josh Sommer on his personal cancer journey and creating the Chordoma Foundation), an article, and a few short books. All of these are optional, but **the video of Josh Sommer is the highest potential value**. One of the books comes as a Hollywood movie.

The video of Josh Sommer: <https://youtu.be/YN88evi1aXs>

The article: *Understanding Academic Medical Centers: Simone's Maxims*. Joseph V. Simone. *Clinical Cancer Research*. Vol. 5, 2281–2285, September 1999 (available at <http://clincancerres.aacrjournals.org/content/5/9/2281.long>).

This article is written by one of the first oncologists to try giving more than one chemotherapy drug at the same time, in this instance for childhood leukemia. He is the 'grandfather' of pediatric oncology and very much active to this day.

A book that became a movie: *The Cure: How a Father Raised \$100 Million--and Bucked the Medical Establishment--in a Quest to Save His Children*. ISBN-10: 006073440X

A painful but heartening book on just how far a parent can go to create a cure for their child. Its movie version, *Extraordinary Measures*, with Brendan Frasier and Harrison Ford: <http://www.imdb.com/title/tt1244659/> (we could play this in the background during a project work session)

Other books:

One Tough Mother

A story of how a mom in an impossible situation built a billion dollar company. To some extent, curing cancer could take this kind of small business approach from the community.

ISBN-13: 978-1558689084

Great by Choice: Uncertainty, Chaos, and Luck--Why Some Thrive Despite Them All

ISBN-13: 978-0062120991

If you do reading about business strategies, you'll love this. If not, then most of what you need is in the first 2 chapters. The message is that in a downturned economy, stick to your mission and make careful decisions that are mindful of the most recent technology (or research).

A Life Decoded

ISBN-10: 0670063584

Sequencing the genome would take 15 years and 3 billion dollars... or does it take \$300 million and only 9 months? This is a real world story of going outside of the box.

Leading for Growth: How Umpqua Bank Got Cool and Created a Culture of Greatness

ISBN-13: 978-0787986070

What business are you *really* in? How can you empower people around you to achieve incredible things? Ray Davis speaks to this in the context of a bank, but it is anything but an ordinary story.

Attendee Suggestions:

Global Genes overview of patient advocacy in drug discovery: <https://globalgenes.org/toolkits/from-molecules-to-medicines-how-patients-can-share-their-voices-throughout-the-drug-development-process/introduction/>