StuCom

Cancer, Stem Cells & Developmental Biology



Favourite Science Stuff in Quarantaine

June Edition

Stories of Students with Research Projects abroad during the Corona Crisis

CSDB Newsletter Survey!

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INTRODUCTION

Dear CSDB students.



It is that time of the year again: there is sun in the Netherlands (!), birds are chirping happily, flowers are blooming and you can smell summer time. But then there was Corona virus. We all might have heard of it, but yes Corona is out there and has a huge impact on our social lives, (mental) health and also our Master. Most of us are not allowed to the lab or we cannot 100% concentrate on our writing assignment or online courses.

As StuCom we also face some problems. Our meetings with lots of garlic no longer take place, all activities need to be online and the retreat has been cancelled. However, Corona cannot stop us: we will continue to organize different things and hope to see as many of you as possible.

With the help of this newsletter we try to cheer you up: you can do it! This June edition is again full of fun games, "take me back moments", interviews and the big CSDB survey.

Enjoy this newsletter and we will see you soon at one of our online activities!

All the best,

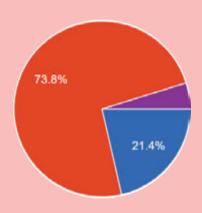
StuCom '19/'20

P.S. When you are facing problems or when you have really cool ideas for the StuCom, you can always contact us or Joost.





We asked all CSDB students to fill in the 'CSDB Newsletter Survey'. Many of you helped us (42 students) and gave very honest and creative answers! We have collected the most interesting or fun answers and listed them below.



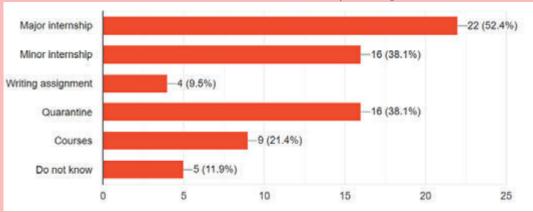
Students

73.8% of the CSDB students is female, 21.4% is male and 4.8% is an animal?!

> Most of the students that filled in the survey are 23 (28.6%) and are in there first year of the Master's.

> > International students are from: Greece, Italy, Lithuania, Spain and the USA. One student is from 'a cave'.

What the students are currently doing:



(although this may have changed in recent weeks)

Minor Internship

76.2% of the students wants to do or was doing their minor internship abroad.

The top 3 countries mentioned were:

- 1. Germany
- 2. USA ===
- 3. UK

Internship

73.8% of the students found their internship great! The other students thought it was debatable and unfortunately, one student even found the internship awful and got a semi-burn out.



- + Supervisor
- + Research topic
- + PI
- + Labmates
- + Studentroom
- + Freedom
- + Lab borrels



- Miscommunication
- Bad supervision
- PI
- Long hours
- Quality pressure
- 99.9% bad results

Tips for future CSDB students



- 1. Be motivated, creative and passionate, everything else will fall into place!
- 2. You are not alone in this: talk to other students, PIs, labmembers and Joost.
- 3. Try all kinds of things: new techniques, learn about different topics and work in multiple environments. Go out of your comfort zone and discover the unknown!
- 4. Join the StuCom

Fun courses:

- 1. Gene expression, Epigenetics and Disease
- 2. Chromosome Segregation, Aneuploidy and Cancer
- 3. Introduction to Stem Cells

Top 3 favorite lab attributes:

- 1. Pipettes
- 2. Ethanol
 - 3. Fire

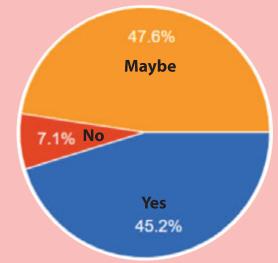


Most students would be a giraffe or sloth if they were an animal

Top 10 lablife in (biomedical) terms:

- 1. Overwhelming intra- and extracellular signals
- 2. Unpredictable outcome
- 3. Break and repair
- 4. Like a vortex
- 5. Apoptosis
- 6. Variant of uncertain significance (VUS)
- 7. Quiescent (for how long?)
- 8. Loss of homeostasis
- 9. Chronic stress
- 10.404 page not found

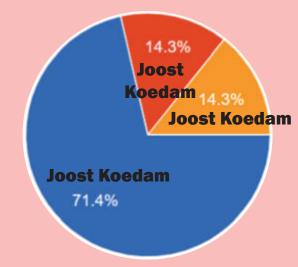
Are you planning on doing a PhD?



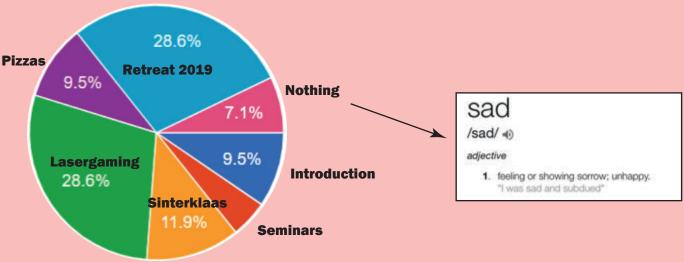
Joost is our favorite teacher of the year!!!

Life changes by the Master:

- "Friends from all over the world"
- "I do what I love the most"
- "I became more mature and independent"
- "I am poor now"
- "I am cooler"
- StuCom 4ever: "Tasting the divine garlic dishes of Jip a must have"



Favorite StuCom activity:

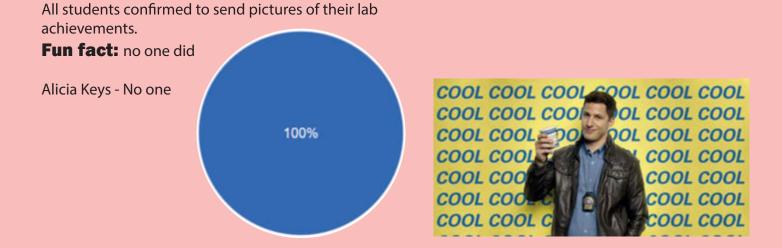


What to do with the StuCom when quarantine is over?

Something with partying, drinks, food (+ again garlic gloves of Jip), karaoke, playing games (30 seconds tournament, board games, pipetting competition (?)) and a retreat after all!

Dinner StuCom meeting:

Next meeting we will eat garlic gloves by Jip or the Curry of Daan and Anneloes



Design your own carreer by Terry Vrijenhoek

For the second seminar, StuCom invited Dr. Terry Vrijenhoek. Terry obtained his PhD on the genetic background of schizophrenia at the Radboud University Nijmegen Medical Centre (RUNMC), the Netherlands. Although he felt very connected to all genetic topics, he did not want to perform research in the lab anymore. Nowadays, Terry works as a program manager at the Centre for Genome Diagnostics within the UMC Utrecht. As a program manager he designs his own projects in relation to the genetic field and communicates genetics to a large audience in a creative way.





(c) Ruben Maalman

The seminar was meant to make us think about our own career and how we can design ours as freely as possible. Terry had built a 'museum' of his own career and gave the students an insight into his life. We discussed all specific moments throughout his life that shaped his career as it is today.

We learned that we have to be flexible and discuss with other people what we would like to do. In this way more is possible than you would think of in advance. This was a good lesson for all the student: dare to dream and follow these dreams!



After the seminar, there were a lot of pizzas (except vegan pizzas #thankstodominos) and all the students had the opportunity to discuss their dreams and career struggles with Terry. It was a successful seminar given in a creative format.

StuCom Seminar (28th of April)

Chromatin dynamics in DNA damage repair by Aniek Jansen

Due to the Corona crisis, it has been difficult for us as StuCom to organize new social activities or seminars. However, 28th of April showed that even this crisis cannot stop us. We organized our very first online seminar via Zoom, which made it possible to join just from your bed, couch, new made "working place" or dinner table.



Not sponsored by Zoom



We were very happy to have Dr. Aniek Jansen as our guest speaker. Aniek told us about her life as a PhD in the lab of dr. René Medema, as a postdoc in the lab of dr. Gary Karpen in Berkeley and as a young Pl currently in Utrecht.

Since her PhD, Aniek is interested in topics related to chromatin and DNA damage. She further investigated how DNA repair occurred in heterochromatin, the compact and silenced parts of chromatin that contain repetitive DNA. Both non-homologous end joining repair (NHEJ) as well as homologous recombination (HR) repair are active in heterochromatin. Aniek developed an inducible *in vivo* single double strand break system in heterochromatin by using I-Scel in Drosophila. This showed that DNA breaks in heterochromatin move to the nuclear and heterochromatin periphery.

Aniek now focuses on DNA repair in heterochromatin. One important player in this is KDM4A, which is a histone demethylase, that plays a role in localization of heterochromatin and in the control of DNA damage repair. Aniek has introduced a model, which she is studying with her current lab members.

Future directions 'Location matters'

Aniek helped us with our questions by sharing her enthusiasm and insights. This first online seminar confirmed that we could use Zoom as our new seminar platform in time of Corona. Unfortunately the borrels afterwards with lots of pizzas will be missed.

LASERTAG

On 11th March our lasertag activity took place! The group was divided into two teams: team blue and team red. Each player got their own vest with electronic sensors that recognize when the vest is hit. Individual players receive points when they hit the opponent, contributing to the overall score of the team. After the game was over, each player received their own scorecard showing how well you had done! In the break everybody got a nice drink to reboot themselves and after that teams were swapped and one final round of lasertag took place.



After two intense rounds of lastertag, we went to café 't Gras van de buren to reveal the destination of the retreat and have some more drinks together. In order to know where the retreat was going, people needed to team up in two and complete the puzzle. Sabina and Linda were the first to complete the puzzle and correctly guessed the retreat destination: Berlin! Unfortunately, as you all know, the retreat to Berlin has been cancelled due to the Corona crisis. But do not be sad, the StuCom is working hard to keep you entertained during these crazy times:)





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	Lord				Bomba Bicycle Club	Che	+
a-ha Beyonce Wham! Rick Astley Billie Eilish Astley Electric Light Orchestra		Billie	Monke	ys P	ed Hot Chilli epper	Madonn	Taylor Swift
		Queen	alt-	Dr	ake	Elbow	
Daft Punk Years Wears Wears West Dua Adele Whitney Houston	Taylor Bombay The Goo Club The Goo Dolls Lorde Arctic Monkey. Cher Madonna Whitney Houston Aqua Queen	Martin	Eminem	Geo Ezr	rge ra	M83	Linkin Park
Arctic Mura Masa Masa Masa Masa Masa Masa	Jain Drake Ricky Martin & Finnem Dua Britton Spice Martin ABBA	G					

On May 15th the StuCom organized its first online activity: a music bingo! After everybody got their own unique bingo cart the fun could begin. Jip blasted all our favorite music through our speakers. Once you heard an artist who was on your bingo card, you could cross it off. First ones to get a full vertical row, horizontal row or cart are the winners. While everybody was eager to win, there could only be three winners. After the music bingo was done, people hung out a bit longer while enjoying a few rounds of drawful. All in all, it was a successful evening and we promise that more of these awesome nights will follow, stay tuned!









IN THE NASMYTH LAB

@ OXFORD UNIVERSITY

Please tell us a little bit about your background.

I studied Life Science & Technology in both Leiden and Delft. I really liked what I learned during my Bachelor, but the two master programmes offered after my Bachelor were not really matching with why I chose my Bachelor in the first place. Things that I found most interesting all came together in the CSDB Master programme, so I was very happy when I heard I got accepted for this Master.

At the moment of writing this I'm back in the Netherlands due to the current pandemic. I will tell as much as I can about my experiences, but note that I was only abroad for 1,5 month. I hope to be able to return soon!

Which country and institute did you go to?

I went to the lab of Kim Nasmyth at the University of Oxford. He is quite famous for his life-long research on cohesin.

Why did you decide to go abroad for your internship, and how did you end up at your current place?

I knew I wanted to go to an English-speaking country, because I saw it as a good opportunity to both go on a science adventure and improve my English at the same time. Since I really like the UK and I liked that it is so close by and thus easy to visit for my boyfriend, this is where I started my search. I started by asking people that gave lectures during courses

that I found interesting, if they knew good labs in the UK. Eventually, this is how I ended up in the lab of Kim Nasmyth, I was introduced by a speaker that gave a lecture in one of the courses.

Was it hard for you to arrange this internship? E.g. Did you have to do a Skype interview or was sending an email enough? Did you have to send out many emails to different labs?

I think as for most internships it is very important to have very good references. Since Kim Nasmyth is quite a busy PI it was difficult to arrange a Skype meeting, but based on my references and CV they were happy to find me a project.

Can you tell us a little bit about your current project?

I work on the role of the replisome in establishing sister-chromatid cohesion. Cohesin forms by pairwise interactions between SMC1, SMC3, RAD21 a tripartite ring and entraps sister DNAs. Cohesion establishment is tightly coupled to DNA replication, but the precise mechanism remains unclear. In my project we try to gain more insight in how sister-chromatid cohesion is established during replication.

Could you tell us about the arrangement of accommodations, grants process as well?

To find a house I used the website "Spareroom", where people offer rooms in shared houses with a description of the house. I had something like 5 online viewings after I was able to find a room with lovely housemates. For me the latter was the most important thing to look for during my search for accommodation and I am happy that I did. It is so important that next to the lab, you have a place where you really feel at home and after a long day can relax.

"It is so important you have a nice place where you really feel at home and after a long day can relax"

All in all, how many months in advance did you start with planning your entire internship? Would you recommend to do it earlier/later?

I went back to check and found out that I already got in touch 1 year before I actually went abroad. I don't think you have to be so early, for me that was just due to when I followed most of my courses. I do recommend to really start in time, eventually it took several months from the first contact to actually signing all the documents. People are often busy and you are not their main priority, so it is nice if there is some time to send reminders.

What has been the hardest part about going abroad so far?

To be honest, I of course was very nervous when I left, but the hardest part was actually to say good-bye already after 1,5 month abroad to all the people that I had just met.

What has been the best part about going abroad so far?

I think it is a very good experience to go abroad. You will definitely learn new things about yourself by going out of your comfort zone and it is really interesting to see how science is done in a different country. For me the opportunity to live in a completely new environment for a few months is what I liked the most.

What are your favourite places to visit in your current city?

Unfortunately, I did not had the chance to visit all the things that I wanted to visit in Oxford (there is so many!). But I already love the atmosphere in the city centre, with all the amazing old buildings of the colleges. I have a pass of the university that gives me free entrance to almost all the highlights in the city centre.

If you would have to give one tip to students who want to go abroad, what would it be?

Really be critical (if you can) when looking for accommodation. I'm so glad that I searched a bit further and eventually found a really nice house with lovely housemates. This is even more important during a pandemic like this.



Your favorite science stuff in quarantine



'I see the **disinfectant** where it knocks it out in a minute. One minute! And is there a way we can do something by an **injection** inside or almost a cleaning? Because you see it gets in the lung... So it'd be interesting to check that.'

There are many science-related **podcasts** out there, able to teach you something interesting everyday! To guide through all the options out there, here are some that we really like:



- 1. **Ologies**: each week another expert is invited to talk about their specialization
- 2. **Stuff to blow your mind**: the title speaks for itself
- 3. **Super women in science**: unrepresented people in science and their stories



If you want to keep your **skills strong**, there are some good online courses now available! Check out elearning.ubc from the Utrecht Bioinformatics Center or Image Processing and Analysis for Life Scientists from edX. You can even start **programming** through carpentry.org or kaggle.com.



Do you want to **take a break** by reading a book or watching a movie, but still feel like you're learning?
We got your back! For **movies** we recommend Interstellar, The Martian but even Nemo is scientifically very accurate! There are many **books** using sciene, but more often in an unaccurate way than accurate. Legacy by Greg Bear, World War



accurate. Legacy by Greg Bear, World War Z by Max Brooks and Lilith's Brood by Octavia E. Butler are all books where the authors did their research.

AN ALUMNUS' TALES

Reijer Aarnoudse, an alumni from CSDB, currently works as a consultant at OpMorgen since 2018.

^{op}morgen

My path from CSDB to consultant

All my life, I try to do stuff that I like. After my bachelor biology (I'm interested in all living things and love plants (9), I chose CSDB (how does new life develop?). Regarding the research part, I did my internship at the lab of Jeroen Bakkers at the Hubrecht Institute. Working with zebrafish on unraveling the genetics of cardiac development was definitely a fascinating experience. However, while pioneering and discovering new insights was compelling to me, I felt the distance to making real impact in the outside world was too big for me. Don't get me wrong, I love to examine something thoroughly and deem academic research highly valuable. But academic research felt just not right for me.

Well then, what could I do?

Hidden in the GSLS study guide was the option for the management profile. I followed an intensive six months program focused on gaining skills in management and business economics. Whole new career possibilities outside academia were unveiled to me. With solid skills in life sciences as well as management, it made a good start for my next career steps. During these courses I learned that I wanted to contribute to the (re)organization of our health care system.

Like every graduate, I searched for a job opportunity. Meanwhile, I got a side job at the Dutch Association of Hospital Pharmacists (NVZA). I enjoyed my colleagues and the work, and I could stay as a junior policy advisor. There, I appreciated working on issues with direct national impact in a social

and political context. I gained experience in hard skills like project management and soft skills like communication with various highly trained professionals. After a while, I wanted to broaden my horizon, find out more about other organizations and further develop my management skills. Thus, I searched for a new opportunity.

Consultant at OpMorgen brought just that combination. At this new job I get to work in challenging temporary positions in various public organizations. Next to learning on the job there is an extensive personal and professional development track. Since OpMorgen is part of consultancy firm TwynstraGudde, I get serious training in their proofed methods in consulting, collaborating, strategic stakeholder management, and project and program management. And best of it, I work in a vibrant young culture! That means a hands on mentality, a balanced competitive atmosphere and plenty of activities such as drinks and a summer course.

At OpMorgen we focus on four markets: health care, energy, mobility and innovation. My main focus is health care of course, though I also work for clients in other markets. I still apply skills learned during my master like structuring information, analyzing data and making complex stuff simple. For instance, when I worked on a strategic plan on data(technology) for the Ministry of Infrastructure and Water Management. Also, I apply newly acquired skills like project and program management.

Recently I started as a program management officer at VIPP OPEN. VIPP OPEN is the national program for general practitioners to help them give all patients online access to their own medical data. My job is to help the program managers as their right-hand man. My tasks are various; e.g. project planning, monitoring and reporting on progress and finance, generating steering information, organize board meetings.

Indeed every time a new set of skills are needed, and a client expects value directly from the start. And despite I don't always get the time to scrutinize an issue, it is still all about problem solving in a very dynamic environment. That's challenging but it also keeps it fun and interesting. I am glad I can contribute to health care in the Netherlands on a whole new level, and get inspired and develop myself daily.

Have you become interested in being a consultant or do you want to learn more about OpMorgen?

Feel free to contact me via LinkedIn or reijeraarnoudse@opmorgen.nl . I am happy to help you with your questions.



Reijer Aarnoudse Consultant OpMorgen https://www.linkedin.com/in/reijeraarnoudse/

The corona crisis when studying abroad

2020, the year of COVID-19 or corona virus pandemic. In the Netherlands, all students have to work on their research projects from home and courses will be online. We cannot be with familiy, a group of friends, nor we can play sports or go to parties anymore. Unfortunately some of us are infected with the virus or have friends or family who are suffering from the infection. But how are students who are/were abroad for their research project dealing with this situation? Is the situation different from the Netherlands, and did they decide to come back?

How would you describe the situation regarding the corona crisis in The United States (San Francisco)?

When I was still there in the beginning of March, the only thing that was a real issue was the people hoarding food and toilet paper at the supermarkets. My supervisor even told me I should take a grocery break in the middle of my lab day to avoid the crowds and occasional fights (!). Other than that, I was still going to the lab and the people around me didn't expect a lockdown situation. The Friday before I left, I said "see you Monday, ha-ha that is if we can come in then!!" as a joke to my supervisor, and he laughed and told me that all would be fine. However, the next Monday San Francisco went on lockdown as one of the first cities in the US, and I flew back on Tuesday.

Why did you decide to come back to The Netherlands?

So that Saturday I was hanging out with some other students from the lab when the rumours of a lockdown started. I woke up on Sunday with emails from Utrecht University urging all students abroad to come home. At that point I was not considering it yet, and it seemed absurd. However, after talking to a Dutch friend I met over there who told me about the escalating situation on the East Coast, we both decided to book a flight for later that week. Then, Monday the San Francisco lockdown was announced, and flight after flight in the coming weeks got canceled. So I spent all day trying to call the KLM USA to change my flight, which worked in the end; I was now flying Tuesday. All in all, I had to pack and leave in a hurry; I didn't even get to say goodbye to anyone there! Right now however, I am happy that I decided to come back to The Netherlands in time.



Most of us are working on their research projects from home, what are you doing for your research project these days?

The first few weeks back in Utrecht, I couldn't get myself to do anything, it was all so weird and unfair to me. Now, I have set up a plan where I work on the introduction for my research project a bit, while also looking for a writing assignment to do in the meantime. I hope to be able to return to the US for a few months later this year to finish my internship (A girl can dream).

"I saíd 'see you on Monday, ha-ha"

Do you have any tips for other CSDB students to survive the corona crisis?

I guess that you should try not to feel the pressure to have super productive work days at home. I mean, it's a crazy and unusual situation and I think taking a step back is better for your mental health than trying to make use of all your 'extra time' to read and write. Take care of yourself and others around you!

The corona crisis when studying abroad

How would you describe the situation regarding the corona crisis in Japan

For a long time, daily life continued as usual. Even though the first cases were reported as early as January, the numbers stayed surprisingly low. So for a long time, people took some precautions, like wearing masks and stocking up on toilet paper and dried noodles, but other than closing museums and schools in February, the government took no extremely noticeable steps.

This changed around the end of March, when numbers started surging. Now people are urged all over to stay home and avoid going out. The government has declared a state of emergency and is requesting all kinds of businesses to close or operate with restricted hours. Due to Japanese law, they can't penalize businesses who don't heed their request, but with people being cautious, restaurants, bars and hairdressers and such have mostly closed now. Even in big cities like Tokyo, the streets are eerily empty. Except around 8-9am and 5-6pm, when all the people who can't avoid going to work are commuting.

Many people think the initial numbers seemed low because the government wasn't testing enough. Personally I think that Japanese customs might also have slowed the spread a little. People generally keep more distance from each other here than in Europe and wearing masks is quite common during the flu season. So the first thing that happened here when fear of an epidemic started spreading, was that people hoarded face masks like there was no tomorrow.



Why did you decide to stay in Japan instead of going home?

I stayed in Japan, because when the situation in the Netherlands exploded, it seemed the situation was more under control here.

I could continue my labwork with no signs that that would change soon, so it seemed silly to drop everything and get on a plane, risk infection, only to sit at home with my family (slowly going insane) in a country where the odds of falling ill are higher. I'd have risked the health of my family too. And have a delay in my studies to boot. Besides, I am really fond of Japan as a country. If the worst that can happen is that I will be stuck here for a while longer than I originally planned, that is something I can live with.

Most of us are working on their research projects from home, what are you doing for your research project these days?

Even though my institute has officially ordered everyone to work from home since last week, supposedly until early May, my supervisor still allows me to go to lab three days a week, as I live on campus and I'm in the middle of a big experiment. So I'm still doing experimental work. The other days, I am also working from home. All in all, I consider myself very lucky to be where I am right now.

Do you have any tips for other CSDB students to survive the corona crisis?

I don't think I'm a good authority for that, as I'm not in home isolation and until two weeks ago, I could still go on weekend trips...

All I have are accounts from other people who have been stuck at home for over a month.

Based on those, I can only say what people have already heard a thousand times: Make sure to (video) call with people to fight loneliness and try to stay positive. Consider what you now have time for that you didn't have before. Things you always planned to do, like reading a pile of books or learning a language or practicing some other skill. Like I said, these are all cliches at this point.

PUZZLE TIME 1.0

In the previous months, everybody needed to stay at home as much as possible, as a result of this your house may be a little bit messier than usual. Hopefully, you can find the missing pieces in the next two puzzles.

In a few minutes I need to show my supervisor some of my latest results, however, I lost my USB stick, can you find it for me?



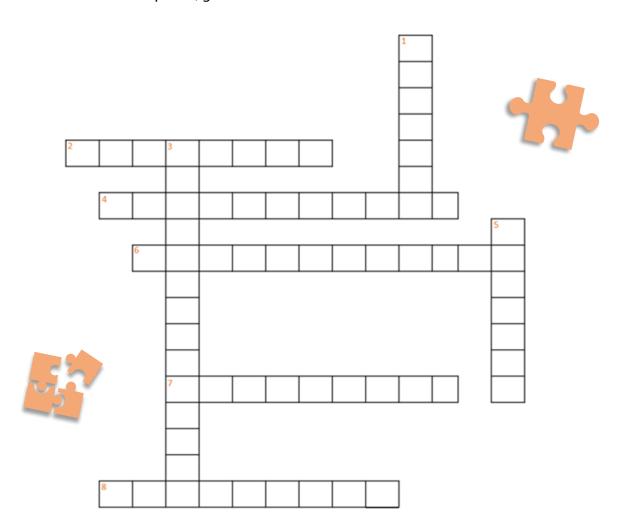
After my Skype meeting with my supervisor, it is time for some Netflix! OH NO, I lost my remote, can you find it so that I can finally relax ...





PUZZLE TIME 2.0

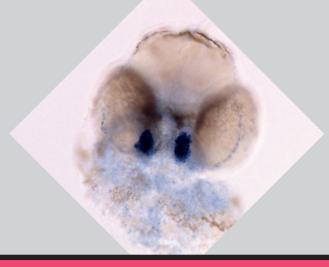
Within this puzzle, your biology knowledge is tested, and yes, with biology we also include plants, good luck!!



Words

- 1. Control center of the cell and stores DNA
- 2. Enables for cell movement, for example in sperm
- 3. Is responsible for the modification, sorting and transport of macro molecules throughout the cells
- 4. Site of photosynthesis in plants
- 5. Is found only in plants and is responsible for plant turgidity and allows plants to stand up straight
- 6. The powerhouse of the cell
- 7. Responsible for protein synthesis
- 8. Stores enzymes responsible for intracellular digestion

Wall of Fame and Shame

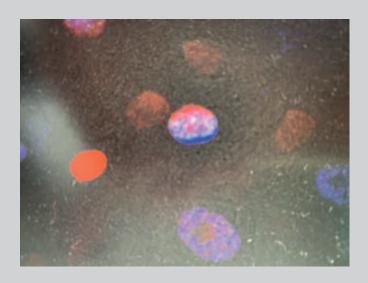


Carlijn Friedrichs

"When your zebrafish embryo really loves you, because one heart is not enough"

Myrna van den Bos

"When your organoids start loving you back"



Mirjam Verbeek

"Do you recognize something Dutch in this image?!"

Highlights of our internships

- That moment you set up your fish for the 10th time and give them some extra love, and you still find NO EGGS in the morning.
- Getting a sunburnt from a UV lamp when cutting a gel, so please be aware of this when doing experiments with a UV lamp!

Colophon

- StuCom e-mail stucomcsd@gmail.com
- StuCom facebook StuCom CSND
- CSDB Instagram
 @stucom_csnd
- CSDB LinkedIn
 CS&D Master Students & Alumni

This StuCom Newsletter was written and designed by Tessa Remmers, Iris Gooijers, Carlijn Friedrichs and Anneloes Keijzer, unless otherwise specified.

Final Quote:

A few minutes before a Skype meeting with the lab

these days:



Stay safe!