BSc (2018)

Material Science and Eng

MSci (2019)

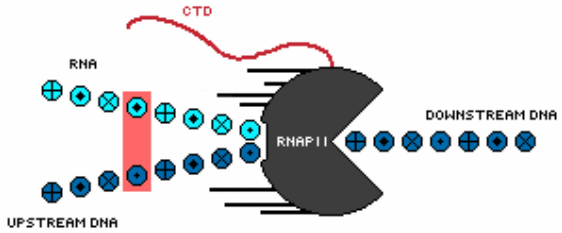
Material Science and Eng

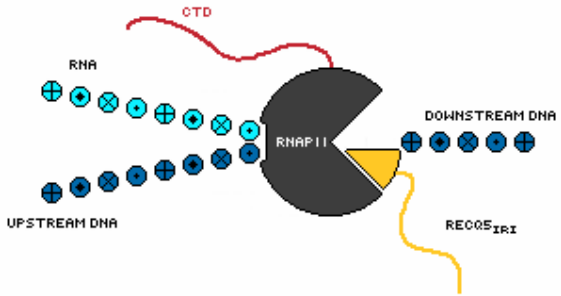
PhD (2023)

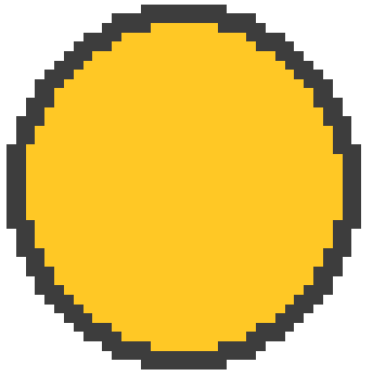
Material Science and Eng

Postdoc (2023-Now)

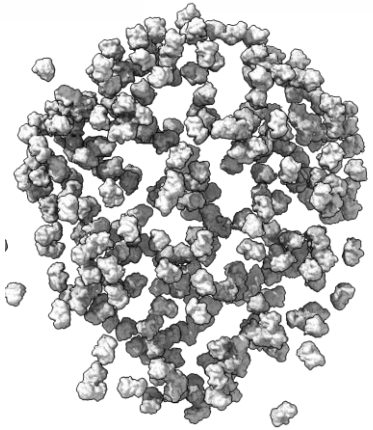
POL2PHASE



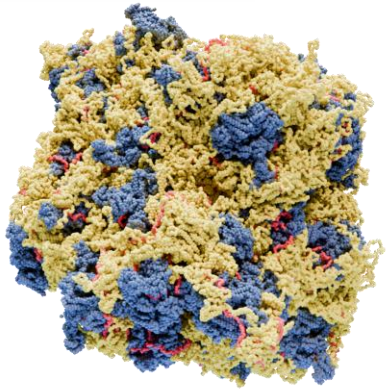




Fluorescence Microscopy



Cryo Tomography



Molecular Dynamics

Funded by the European Union

This project has received funding from the European Union's Horizon Europe research and innovation programme under the Marie Sklodowska-Curie grant agreement No 101180586

MSCA - PF

All your fears are valid, and you should still apply

MSCA - PF

All your fears are valid, and you should still apply

(plus a cheat sheet at the end)

Fear 1

“I don’t want to leave my friends / partner behind”

Fear 2

“Moving is expensive, and takes a lot of time”

Fear 2

“Moving is expensive, and takes a lot of time”

5 boxes

30 kg each

355 Euro

Fear 3

“I’m not going to get it anyways”

Fear 3

“I’m not going to get it anyways”

Fear 4

“What if my project fails?”

Cheat Sheet

50% of the application is on **Impact** and **Implementation**

1. Read EU Goals and Guidelines (specifically Horizon)
2. Be thoughtful about Gender Dimension
3. An exchange means knowledge imbalance
4. Give exact (reasonable) numbers for outreach

	Description of Activity	Importance	Expected Reach
DIS 1	**Academic Journals:** Publishing findings as Open Access in peer-reviewed, high-impact journals specific to material science, MD simulations, and pharmaceutical applications. (Nature, PLOS, Biophysical Journal)	Highly important as it brings credibility and validation to the research and ensures that the findings are accessible to the global scientific community.	~500 reads per article and 20-30 citations over next 5 years
DIS 2	**Conference Presentations:** Presenting the research at national and international conferences that focus on pharmaceutical applications, MD simulations, and material science. (CECAM, BioPhysical Soc Meeting, FEBS)	Vital for immediate feedback from peers, networking with fellow researchers, and attracting potential collaborators.	50-100 depending on the format of the conference
DIS 3	**Online Webinars & Workshops:** Organizing webinars and workshops to delve deeper into the methodologies, findings, and implications of the research.	Crucial for targeting a broader audience, including students, industry professionals, and international peers who can't attend conferences.	10-100
EXP 1	**Pilot Industrial Collaborations:** Engaging with pharmaceutical and material science industries at tech expos to discuss the practical applications of the research. (Pharmatechnica & Medica)	Significant for translating research into real-world applications and garnering industry support. May uncover hidden roadblocks that had not been considered.	~5-20

Cheat Sheet

50% of the application is on **Impact** and **Implementation**

1. Read EU Goals and Guidelines (specifically Horizon)
2. Be thoughtful about Gender Dimension
3. An exchange means knowledge imbalance
4. Give exact (reasonable) numbers for outreach
5. Your project might fail, admit it and try to prevent it

Description of Risk	Probability	Impact	Risk Factor	WP
Losing Collaborators	Med	High	3	1,3
While the collaborators have joint interest in the project, their participation is not a promise. **WP1**: New collaborators will be contacted to produce high-purity samples of Pol II + SCAF4/8 condensates which will be imaged by technicians at CEITEC and analyzed by myself. There is already sufficient data on SOSS1 and RECQL5 that has been gathered by the collaborators. **WP3**: Experimentalists within the Vácha group can create the condensates *in vitro*, although with insufficient purity for imaging, but enough to perform fluorescence microscopy instead – a technique with which I am practiced. The supplement will be sufficient to determine if the condensate is stabilized or not.				

Cheat Sheet

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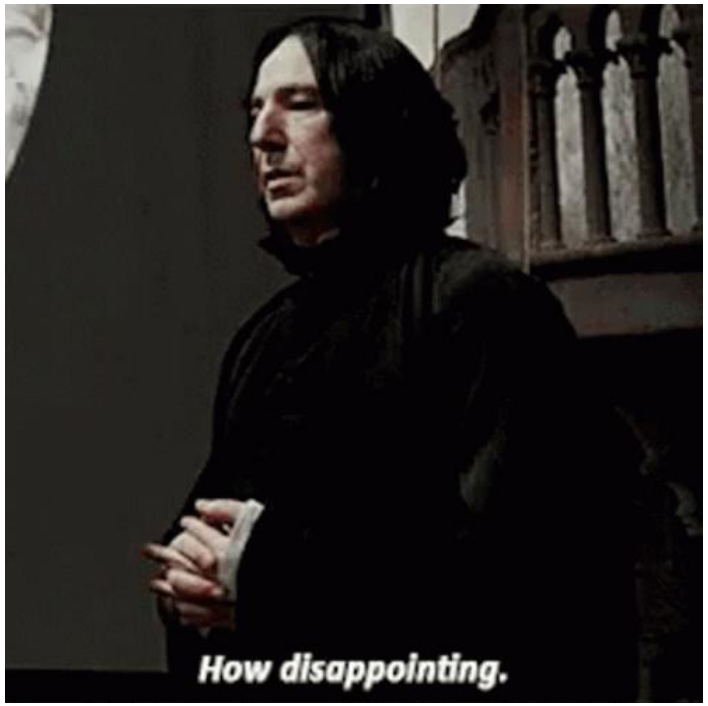
5. Your project might fail, admit it and try to prevent it
6. Be kind to the reviewer’s eyes

WP		Year 1												Year 2											
		Semester 1						Semester 2						Semester 1						Semester 2					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Methods for Characterizing Condensate Formation																									
1	Model proteins																								
	Model cond.																								
	cryoEM																								
	In vitro comp.																								
Genetic & PTM Defects Causing Dysfunction in Condensates																									
2	Contact map																								
	Intro. defects																								
	PTM states																								
	FE of TF																								
Synthetic Proteins for Condensate Regulation																									
3	Stabalize cond.																								
	All-atom sim.																								
	Order protein																								
	In vitro results																								
Dissemination																									
4	Dis Plan																								
	Open Science																								
	Local Events																								
	Open Letter																								
Personal Development																									
5	MSCA Admin																								
	Teaching																								
	Rec. training																								
	Learn all-atom																								
	Apply for pos																								
Milestones				1				2	3				4		5				6	7					
Deliverable		5.1	5.2							1.1	1.1			2.1			2.2					3.2		3.1	4.1

Cheat Sheet

50% of the application is on **Impact** and **Implementation**

1. Read EU Goals and Guidelines (specifically Horizon)
2. Be thoughtful about Gender Dimension
3. An exchange means knowledge imbalance
4. Give exact (reasonable) numbers for outreach
5. Your project might fail, admit it and try to prevent it
6. Be kind to the reviewer’s eyes
7. Highlight the relationship with your supervisor

Fear 5

“What if I don’t get along with my supervisor?”