

MSCA fellowship – my journey



Prof. Radha Boya, PhD

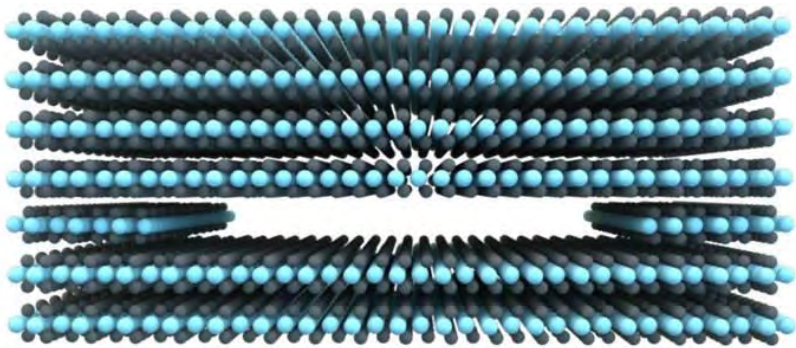


@radhaboya



About Myself – Radha Boya

“2D-empty space”



<https://radhaboya.weebly.com/>

our awesome team in 2020



About Myself – Radha Boya



Materials chemistry



Condensed matter physics



2012



JNCASR



2013

Postdoc



2014



2016



LEVERHULME
TRUST



2017



2018

erc

2019

CV of “failures” – Radha Boya

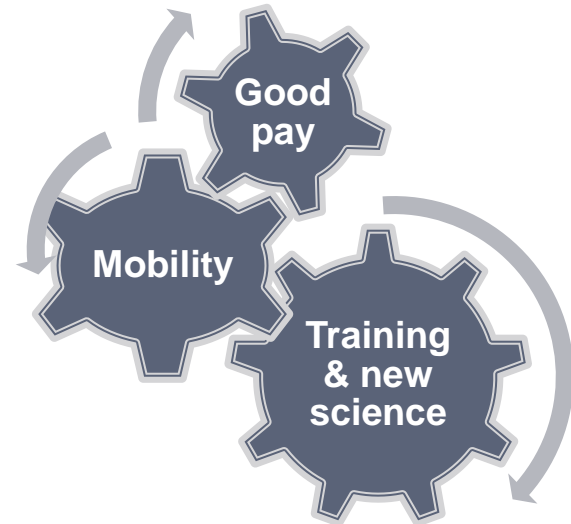
- PhD in premier institute in India – not shortlisted
 - Postdoc – over 100x applications
 - Beckmann postdoctoral fellowship – 2x
 - Branco-Weiss postdoctoral fellowship
 - Lecturer position in Manchester, interviewed
 - Faculty applications – EPFL, Singapore - rejected
 - Royal society research grant – failed & got 2nd time
 - EPSRC Early career fellowship – 2x
- list is only indicative, not exhaustive 😊

CV of "failures" – Radha Boya



MSCA fellowships are Unique

- Two Main criteria – **Science and You**
- How does this fellowship help your career and science?



My MSCA timelines – as a fellow & PI

- **Contacted PI** by email
 - **Applied:** Sept 2013 (1 year after PhD)
4 weeks of intense proposal writing
mobility from US to UK
 - Feb 2014 - placed in **reserve** with 0.5 % less than cut-off (91.5 in chemistry panel)
 - **Offered** with full funding in May 2014
- **Fellow contacted me** by email
 - **Applied:** 2 years after fellow's PhD
12 weeks of proposal writing
mobility from Saudi Arabia to UK
 - **Offered** with full funding (98% in chemistry panel)

If your idea is **creative, challenging** and you found a perfect host, there is no better time than now – Apply!

MSCA fellowship proposal - First things first

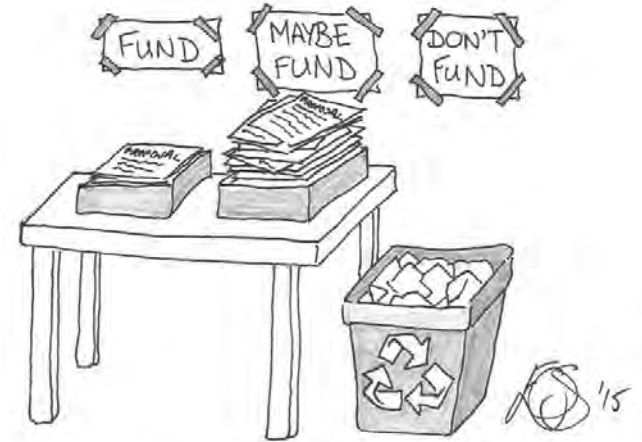
- **What** is your idea?
- **Who** will do it (PI and yourself – Team)
- **Why you** and **why** this team?
- **Where** will you do it
- **How** does the project align with your career plans?

Criterion 1 - Quality/Excellence (primary criterion)
– 30% weightage

MSCA fellowship proposal - First things first



- Have a ground breaking **idea**
 - Non-incremental
 - Not a “fishing expedition”
 - Hypothesis driven



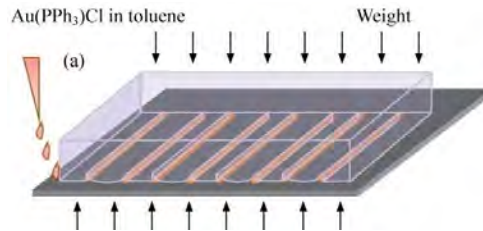
Review panel categories.

- Study the guidelines – Rules can change year to year
- Download latest templates of B1 and B2
- Choose your Panel (e.g., I chose chemistry as a fellow)
- Keywords (reviewers) and Acronym

Perfect Match – Host PI & Yourself

Fellow expertise:

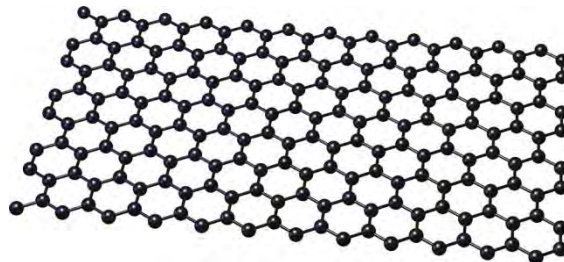
Nanofabrication
Nanofluidics
Self-assembly
Materials chemistry



Is there a **gap in knowledge** &
Can you bridge it?

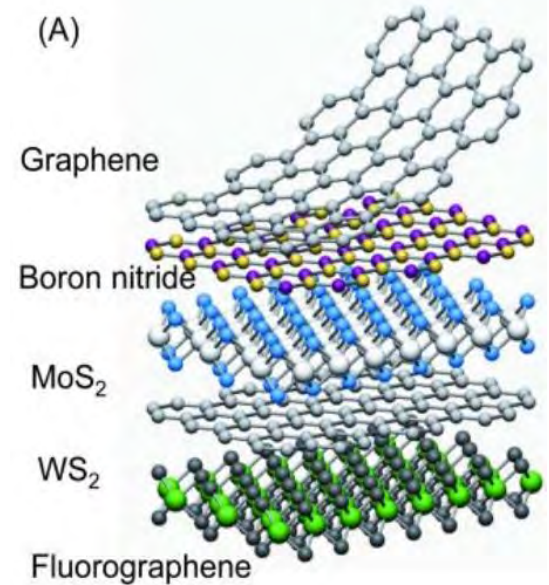
PI expertise:

Pioneers of graphene
2D-materials
Condensed matter physics



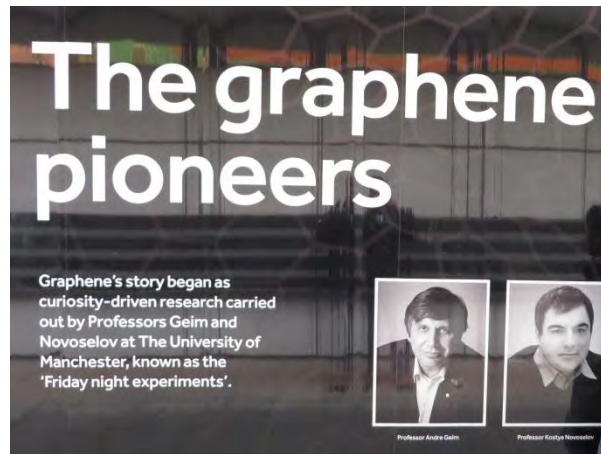
Perfect Match – Host PI & Yourself

- Searching a host
 - Research groups where you can learn new skills
 - Network of collaborators?
 - Does the host has excellent track record of publishing and/or patenting, whichever is relevant to your field
- University/SME/Industry – whichever aligns with your career plans and project implementation
 - host track record of mentoring MSCA fellows
 - **Impact** - how does it impact your career and science (30% weightage)



“2D-Heterostructures”
Graphene Heterostructures by Self-
Assembly: Top-down meets Bottom-up

Perfect Match – Project & Host organization

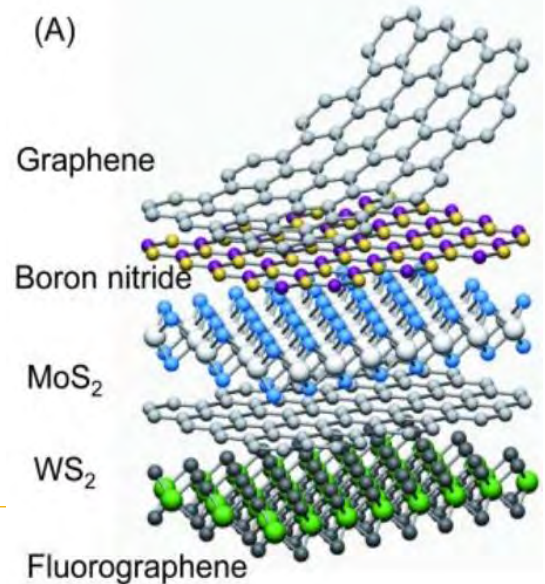


Excellent people



Infrastructure – world class labs

- New skills for Fellow - Training (technical & professional)
- 2-way transfer of knowledge
- **Right place to do the project**



“2D-Heterostructures”
Graphene Heterostructures by Self-
Assembly: Top-down meets Bottom-up

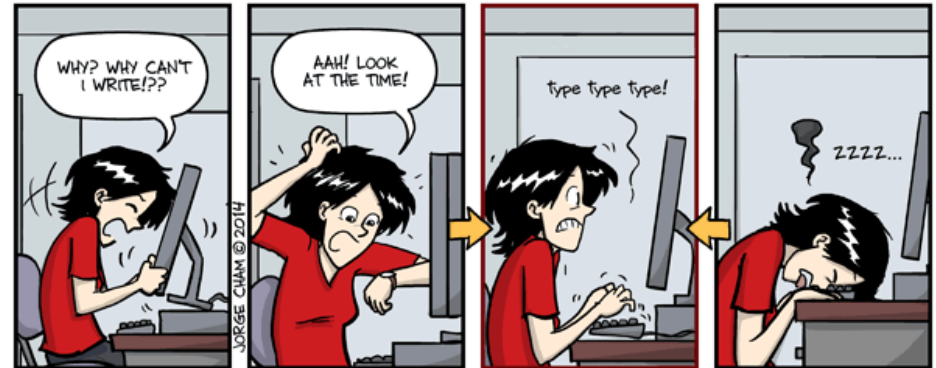
MSCA – the fellow & PI

- **Leadership – Evidence it**
 - helped organize conferences?
 - built a technique/new methodology?
 - mentored students?
 - initiated/led collaborations?
- **Track record**
 - Fellow - publications, travel grants,
 - Awards (poster, oral presentations etc.)
 - For PI - management of projects.



MSCA Grant writing - Proposal

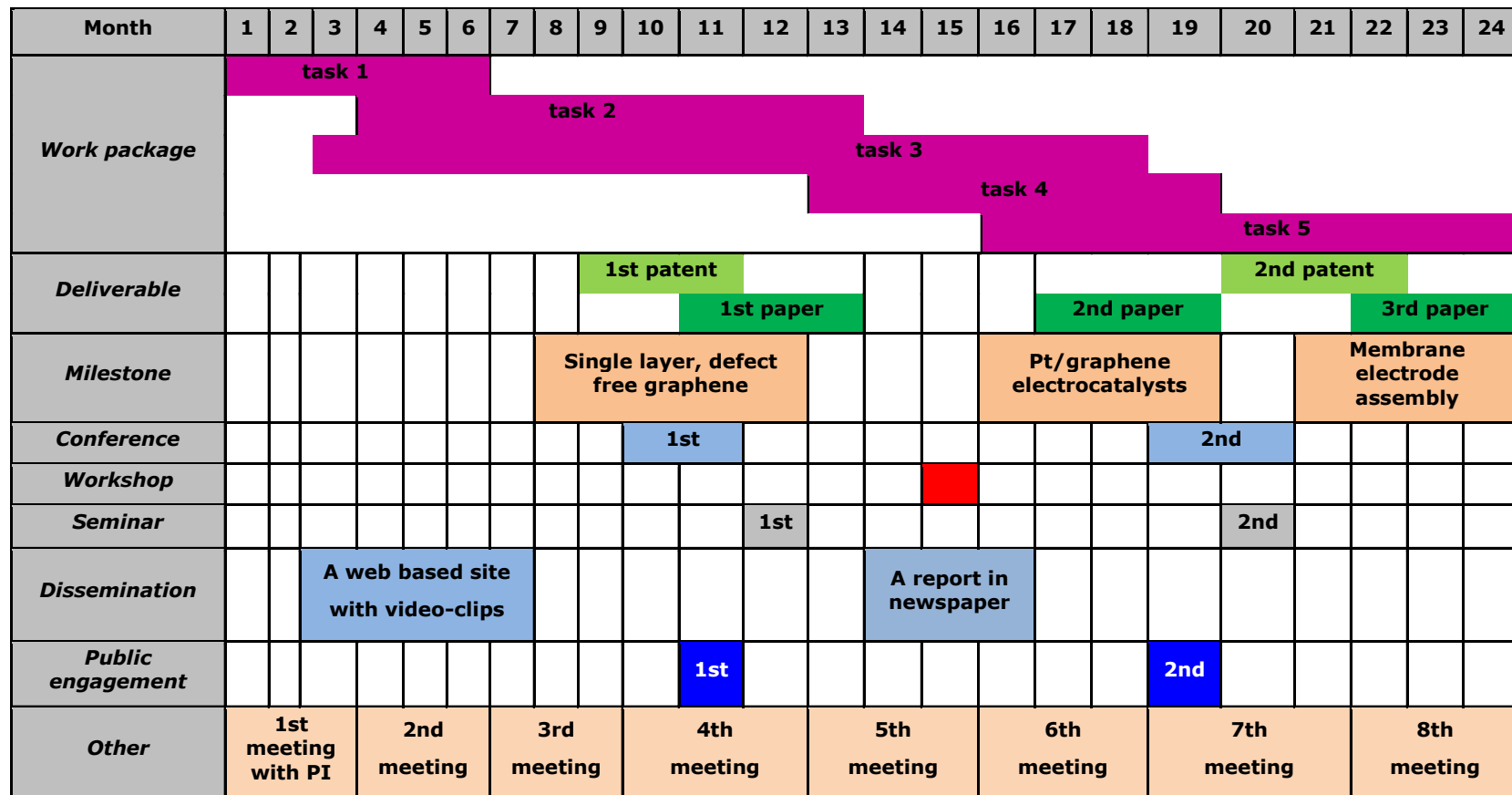
- Give plenty of time to write
 - where does your idea fit in the field in the broad picture?
- Space is precious
 - graphical information (diagrams, pictures)
- The Devil is in the details
 - Detailed project management
 - Gantt Chart
 - Implementation - 20 % weightage



WRITING: THE THING THAT HAPPENS IN BETWEEN EXHAUSTING YOUR DEADLINE AND EXHAUSTING YOURSELF.

WWW.PHDCOMICS.COM

Gantt Chart



BEST Advice

- **Take Time for writing** - Emphasizing the novelty without repetition and redundancies takes time
- **Get to the point** – Avoid very long intro
- **What and How** – Clearly explain “What is your project” and “how are you going to do it”
- **Coherent story telling** - Recycling materials from previous grants will look “Patchy”
- **Inputs** from host, colleagues, friends will make your proposal “Catchy”

All the Best

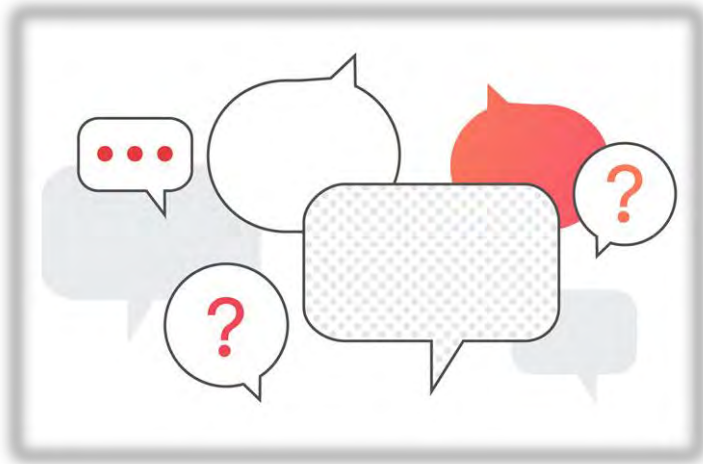
Top TIPS



- Choose the perfect match –
host expertise & your skills
Pioneering Idea
- Build Your CV
- Focussed writing – shape the story
- Plenty of feedback

Thank you!

Questions ?



"The MSCA fellowship has given me the opportunity to work with the host of my choice, with the freedom to do research which interests me. I am originally from India; with the MSCA fellowship, I moved from the USA to the UK. The mobility offered by the MSCA helped me progress to the next stage of my research career."

Radha Boya

India



Radha leads a group of scientists at the University of Manchester working on atomic pipes, which are only one atom thick. These are made from the wonder material graphene. Their potential applications include desalination, gas separation and a number of other exciting uses. Radha was

involved in "women in graphene" under the EU-Graphene flagship programme. In 2017 she won the 'L'Oréal-UNESCO Prize for Women in Science'.

2D-HETEROSTRUCTURES – Graphene Heterostructures by Self-Assembly: Top-down meets Bottom-up



CLIMATE ACTION
RESOURCE EFFICIENCY
RAW MATERIALS