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Viera Skakalova

CompSafeNano

High-quality carbon nanomaterials and 2-dimensional structures

High-quality graphene oxide and graphene

2D structures: 2D-CuI, 2D-AgI, 2D-BiI3 in graphene

More about our products ›

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How to prepare a successful proposal?

Horizon 2020

Call: H2020-MSCA-RISE-2020

(Marie Skłodowska-Curie Research and Innovation Staff Exchange)

Topic: MSCA-RISE-2020

Type of action: MSCA-RISE

Proposal number: 101008099

Proposal acronym: CompSafeNano

European Commission

Objective of Staff Exchanges

The SE action funds short-term international and inter-sectoral exchanges of staff members involved in research and innovation activities of participating organisations. The aim is to develop sustainable collaborative projects between different organisations from the academic and non-academic sectors (in particular SMEs), based in Europe and beyond. Exchanged staff benefit from new knowledge, skills and career development perspectives, while participating organisations increase their research and innovation capacities.

How to apply?

Apply on behalf of an organisation or consortium

Applications to MSCA Staff Exchanges can be submitted at any time from the opening date of the chosen call. The completed proposal, including all annexes, should be submitted by the specified submission deadline of the chosen call.

Applicants can

- find open and forthcoming calls on our page on funding
- find partners and apply through the Funding and Tender Opportunities Portal

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European Commission | CORDIS

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Project Description Title

Nanoinformatics models for nanomaterial risk assessment

Description

Nanomaterials (NM) are increasingly used in several commercial applications thanks to their unique properties. However, any potential health and environmental risks linked to these properties will need to be carefully assessed. NM risk assessment requires advanced in silico methodologies. The EU-funded CompSafeNano project will develop integrated nanoinformatics models with broad applicability across a variety of NM compositions and shapes for the industrial sector and SMEs. The project will create an attentive model that includes in silico predictions-based environmental sustainability. CompSafeNano envisages the establishment of an in silico safe-by-design computational platform that will be in communication with other EU projects to assess existing data on NM risks and integrate current nanoinformatics and NM risk governance platforms.

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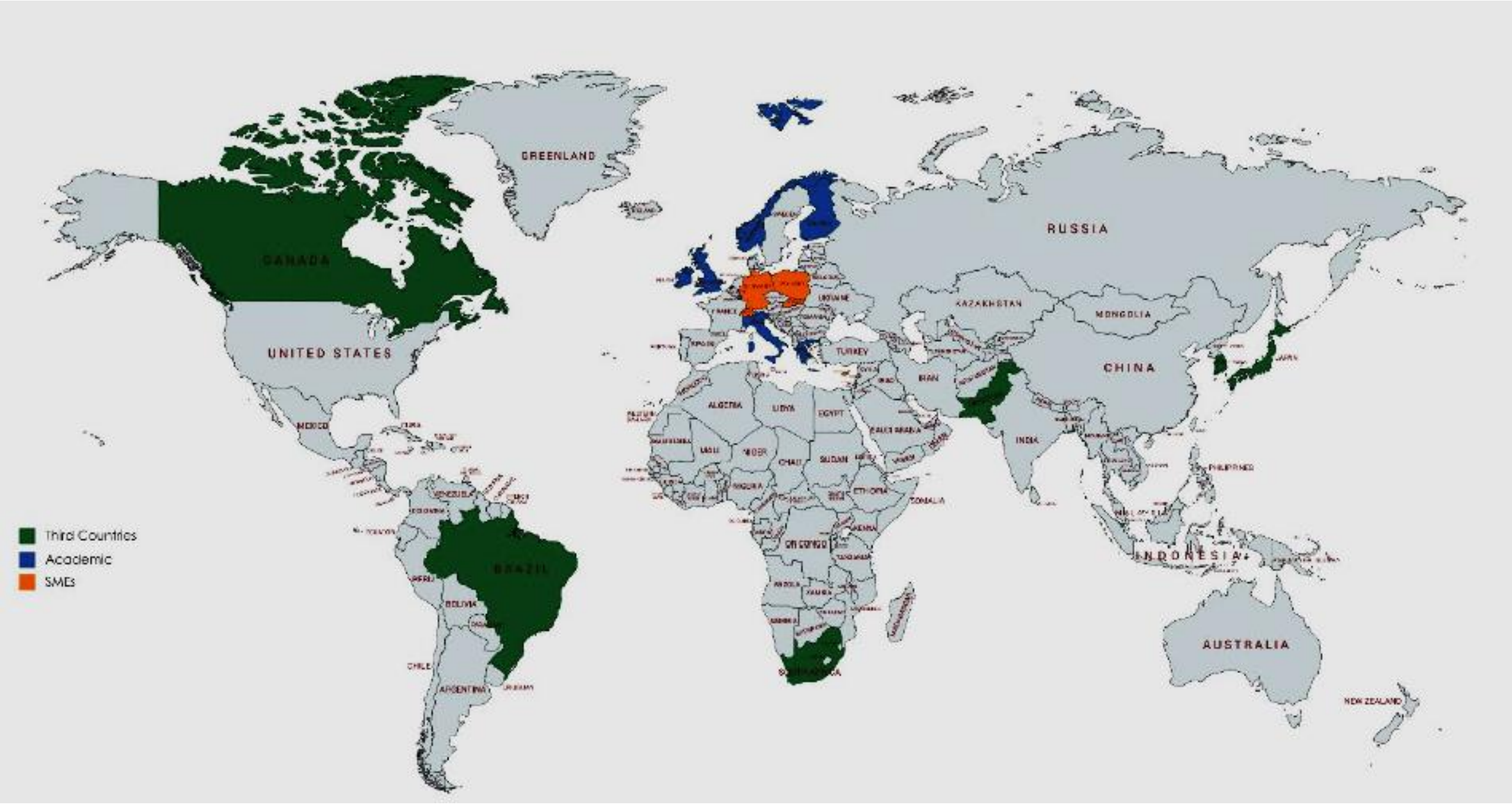
22 Partners:

16 European countries

6 Third countries

#	Participant Legal Name	Country	Action
1	NOVAMECHANICS LIMITED	Cyprus	
2	THE UNIVERSITY OF BIRMINGHAM	UK	
3	UNIVERSITY COLLEGE DUBLIN, NATIONAL UNIVERSITY OF IRELAND, DUBLIN	IE	
4	NORSK INSTITUTT FOR LUFTFORSKNING STIFTELSE	NO	
5	LUXEMBOURG INSTITUTE OF SCIENCE AND TECHNOLOGY	LU	
6	QSAR LAB SPOLKA Z OGRANICZONA ODPOWIEDZIALNOSCIA	PL	
7	TAMPEREEN KORKEAKOULUSAATIO SR	FI	
8	NATIONAL TECHNICAL UNIVERSITY OF ATHENS - NTUA	EL	
9	FREDERICK UNIVERSITY FU	CY	
10	UNIVERSITA DEGLI STUDI DEL PIEMONTE ORIENTALE AMEDEO AVOGADRO	IT	
11	MYBIOTECH GMBH	DE	
12	DANUBIA NANOTECH SRO	SK	
13	EDELWEISS CONNECT GMBH	CH	
14	CALCULUS IKE	EL	
15	NORGENOTECH AS	NO	
16	TARTU ULIKOOL	EE	
17	INDUSTRY-UNIVERSITY COOPERATION FOUNDATION OF HANYANG UNIVERSITY	KR	
18	NATIONAL UNIVERSITY OF SCIENCES ANDTECHNOLOGY AT ISLAMABAD	PK	
19	HEALTH CANADA	CA	
20	CENTRO NACIONAL DE PESQUISA EM ENERGIA E MATERIAS ASSOCIACAO PRIVADA	BR	
21	NATIONAL HEALTH LABORATORY SERVICES	ZA	


GREENLAND
CANADA
UNITED STATES
MEXICO
RUSSIA
KAZAKHSTAN
MONGOLIA
CHINA
TURKEY
IRAN
INDIA
ALGERIA
LIBYA
EGYPT
SAUDI ARABIA
NIGER
CHAD
SUDAN
ETHIOPIA
SOMALIA
DR CONGO
ANGOLA
VENEZUELA
BRAZIL
PERU
BOLIVIA
CHILE
ARGENTINA
PHILIPPINES
INDONESIA
AUSTRALIA
NEW ZEALAND
Third Countries
Academic
SMEs

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Partners	Number of Secondments Out	Sending Person Month	Number of Secondments	Hosting Person Month	WPs
NOVAM	14	36	34	54	1-8
QSAR Lab	24	24	16	27	1-5, 7, 8
MyB	9	10	2	3	4, 5, 8
DNT	6	12	8	11	3-6, 8
EwC	6	8	9	14	1-8
Calc	7	24	29	43	1-6, 8
NGT	7	8	6	15	2-5, 8
UoB	35	64	24	37	1-8
UCD	14	20	7	15	1, 2, 7, 8
NILU	14	16	7	14	2, 4-8
LIST	12	20	11	19	2-5, 7, 8
TUNI	9	20	15	32	2-4, 7-8
NTUA	7	16	12	25	1-2, 4-8
FredU	13	24	7	17	2, 4-6, 8
UPO	24	25	10	26	1-8
UTARTU	11	17	4	8	1-2, 7-8
HYU	10	26	17	24	1-6, 8
NUST	12	12	6	11	2, 5, 6, 8
HC	0	0	7	9	1, 2, 5, 8
CNPEM	14	47	22	35	1-6, 8
NHLS	16	24	8	11	1-5, 7, 8
NIES	1	2	4	5	2, 4-5, 8

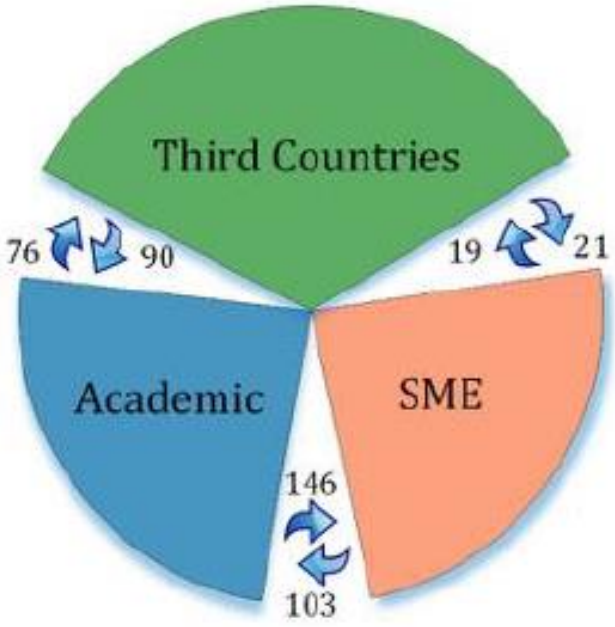

Figure 5.
CompSafeNano network of eligible secondments (cross-sectoral and international).

Mechanisms to support researchers and staff in realising their potential	
On-site learning – Host institution	
At least **1 week of hands-on training** for the exchanged staff on the tools and research methods they will utilise during their secondment.	On-site training will be supported by secondee participation in **short courses and training sessions** provided by the host institutions for their own researchers
Collaborative Research on CompSafeNano research topics	
Our aim is to facilitate **convergence** of ideas and approaches, through meaningful and **sustained collaboration** across disciplines, approaches (experimental/informatics) and sectors to share knowledge gained in previous and current projects, and improve the joint design, integration, cross-validation & benchmarking of nanoinforatics tools and **enhance their regulatory readiness**.	
Alignment of CompSafeNano tools with relevant regulatory regimes	
Legal and regulatory frameworks for nanosafety are evolving rapidly, and a core component of the project will be a **continuous exchange of knowledge** and experience to ensure the tools are aligned with and feeding into future regulatory developments, maximising the regulatory adoption and regulatory use of the nanoinformatics tools, through increased "**regulatory readiness"** of the tools.	
Complementary approaches for knowledge exchange & provision of a pleasant working environment	
a) remote training of researchers and users via the project communication and dissemination activities, including the website, training activities (summer school, webinars etc.) b) on-site training of the seconding researchers in the specialist research methods / tools at their host institutions via mentoring and hands-on 1:1 support c) Co-development of training materials to support industry and regulator adoption of project outputs d) Programme of monthly seminars and brainstorming sessions to drive the research content.	

CompSafeNano:

In 2020: COVID – 19!

Interuption for 2 years

Back to work in 2022

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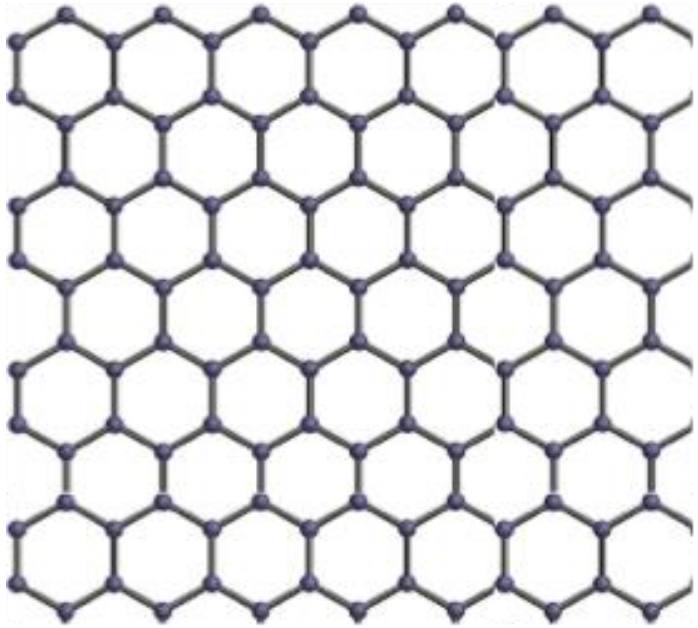
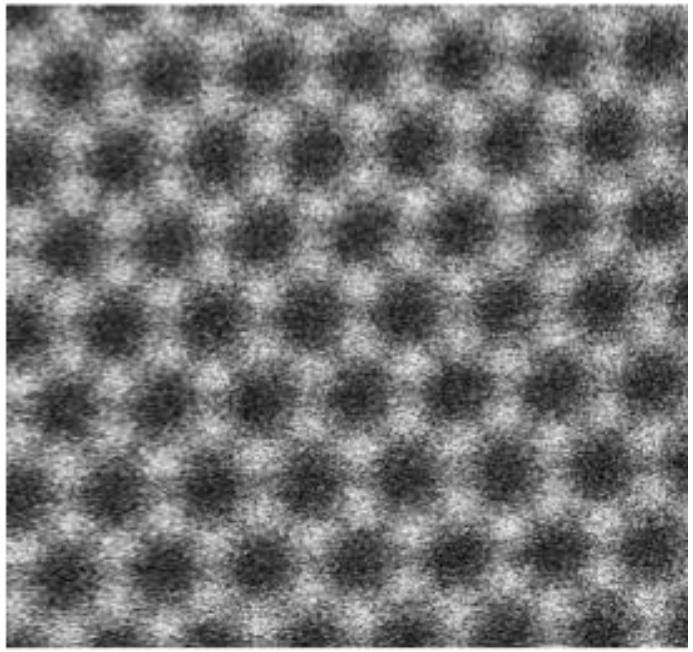
Graphene Production

Carbon atoms

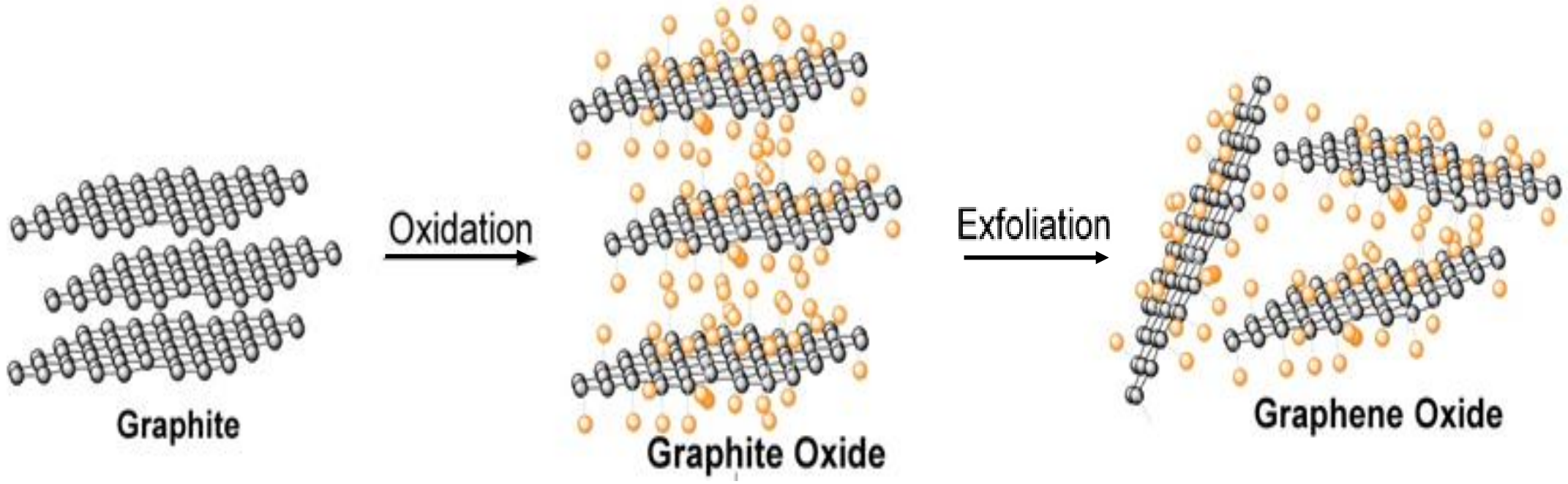


NION – STEM at University of Vienna



Synthesis of Graphene flakes

Oxidation of graphite:



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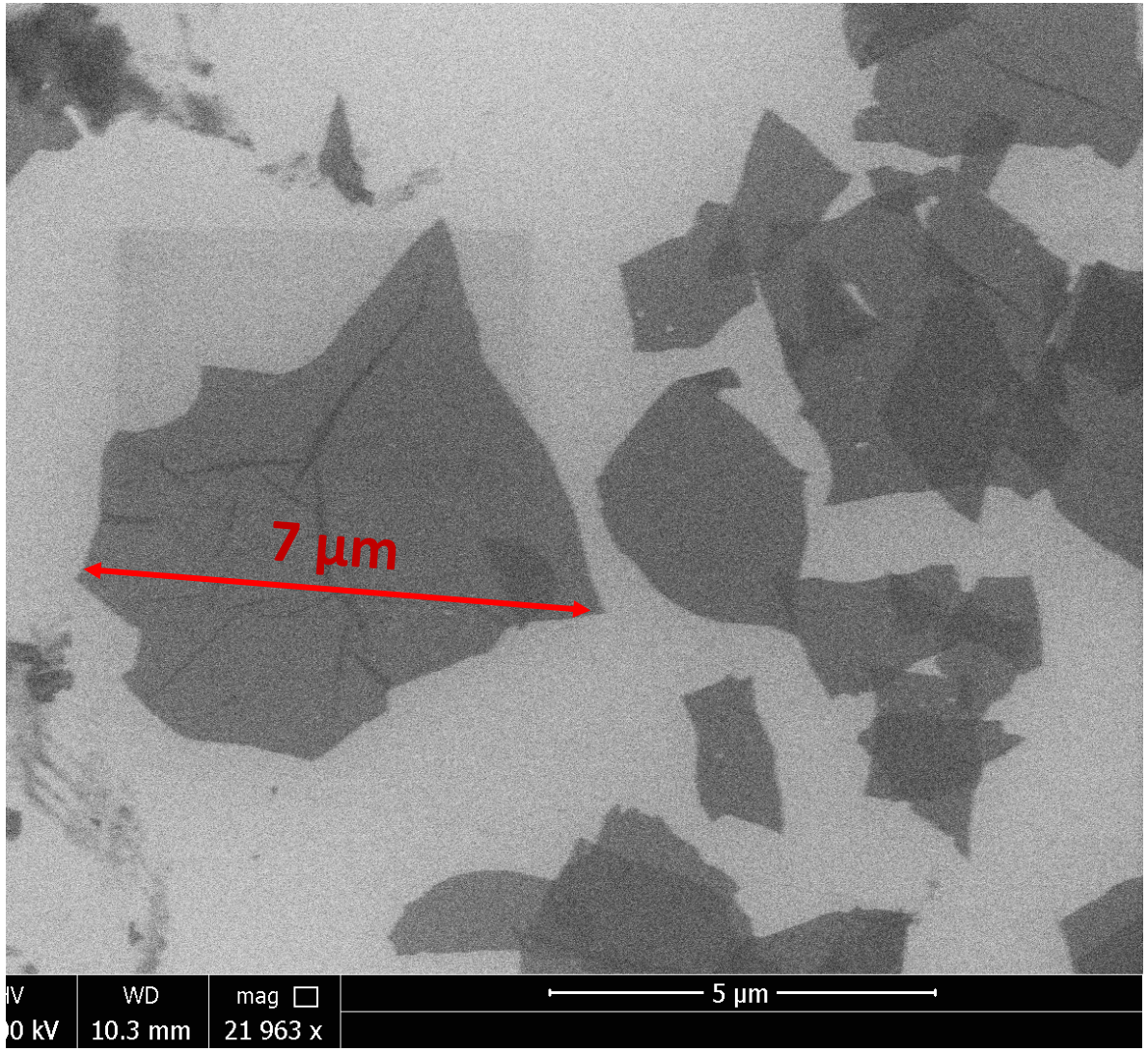
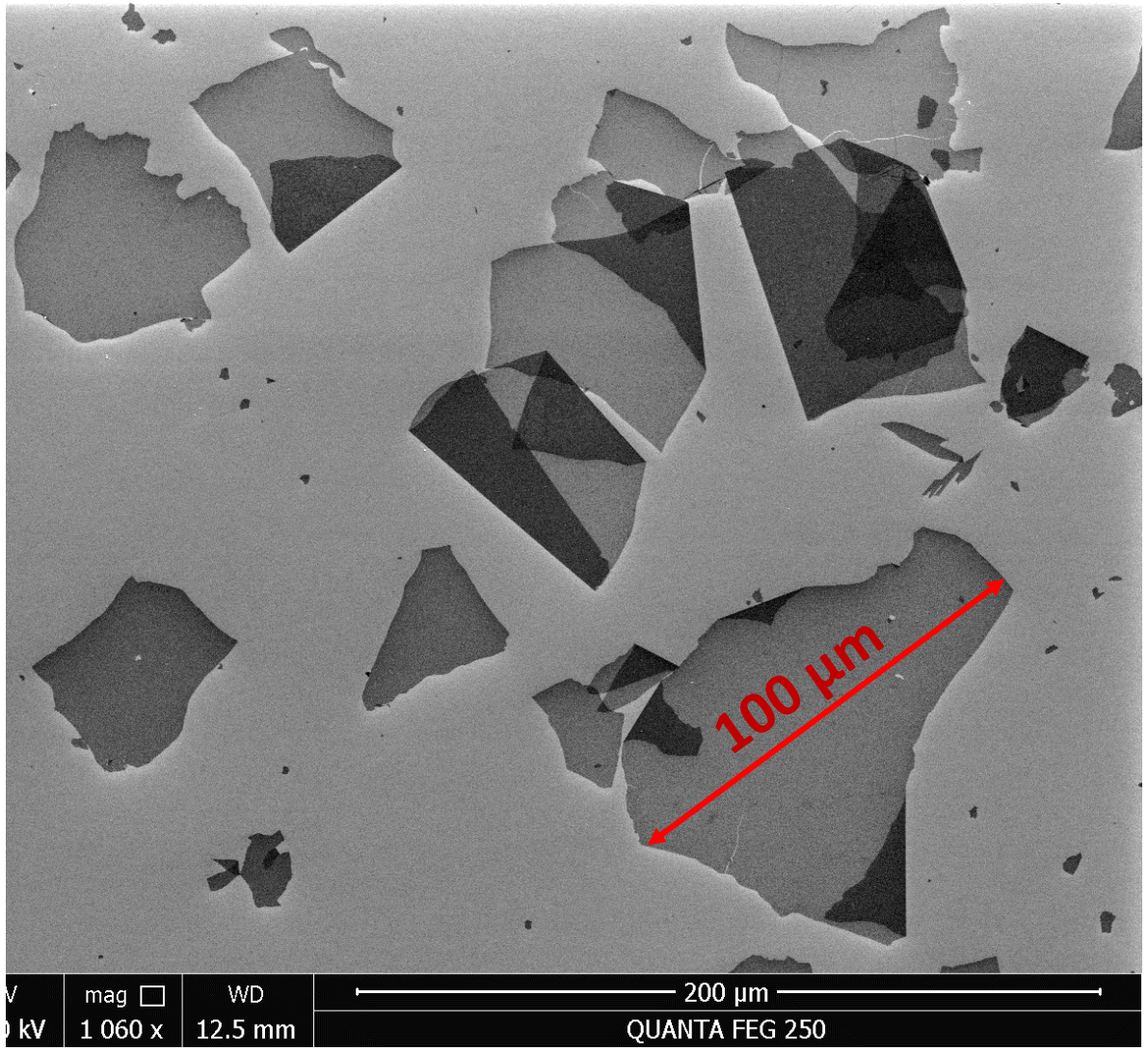
Different size of graphene oxide flakes

SEM





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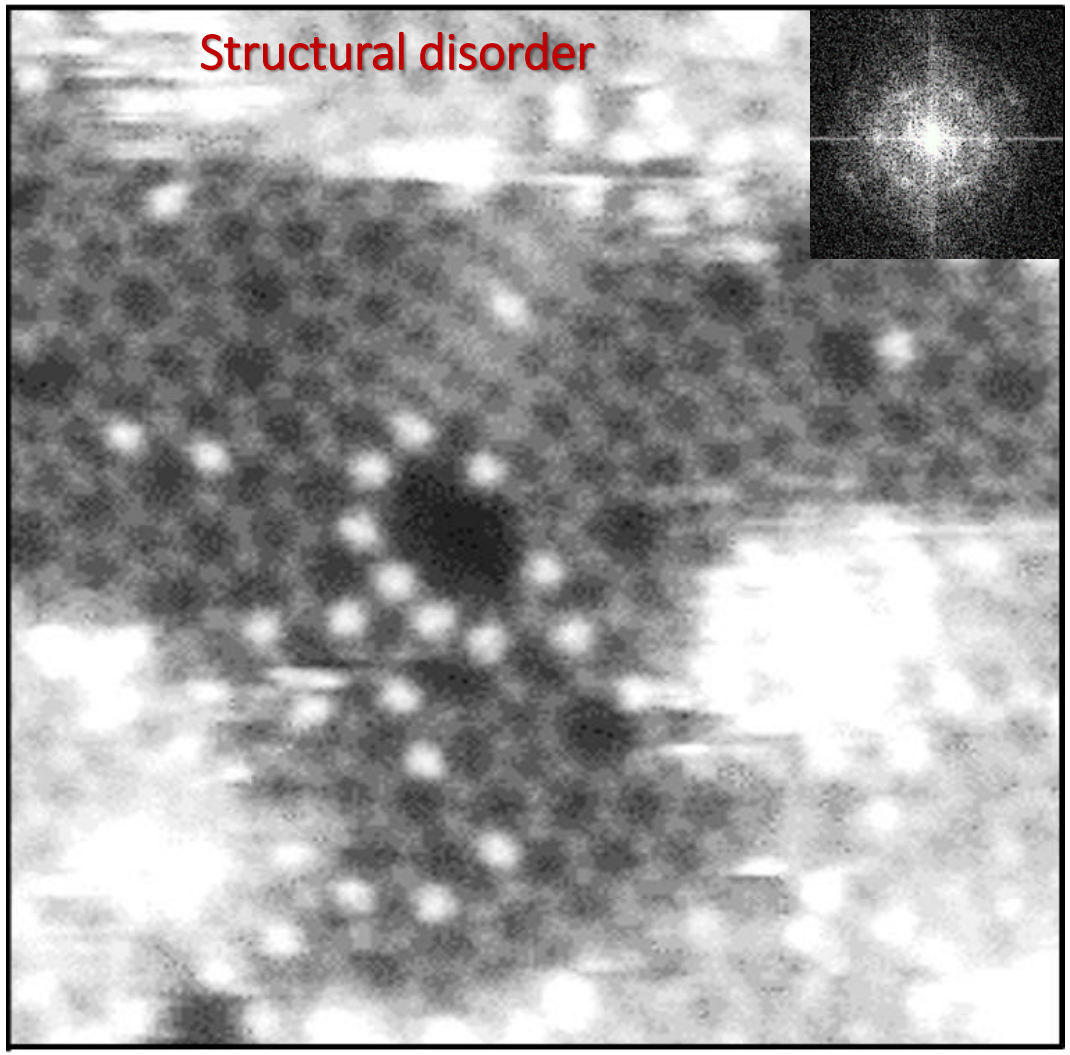
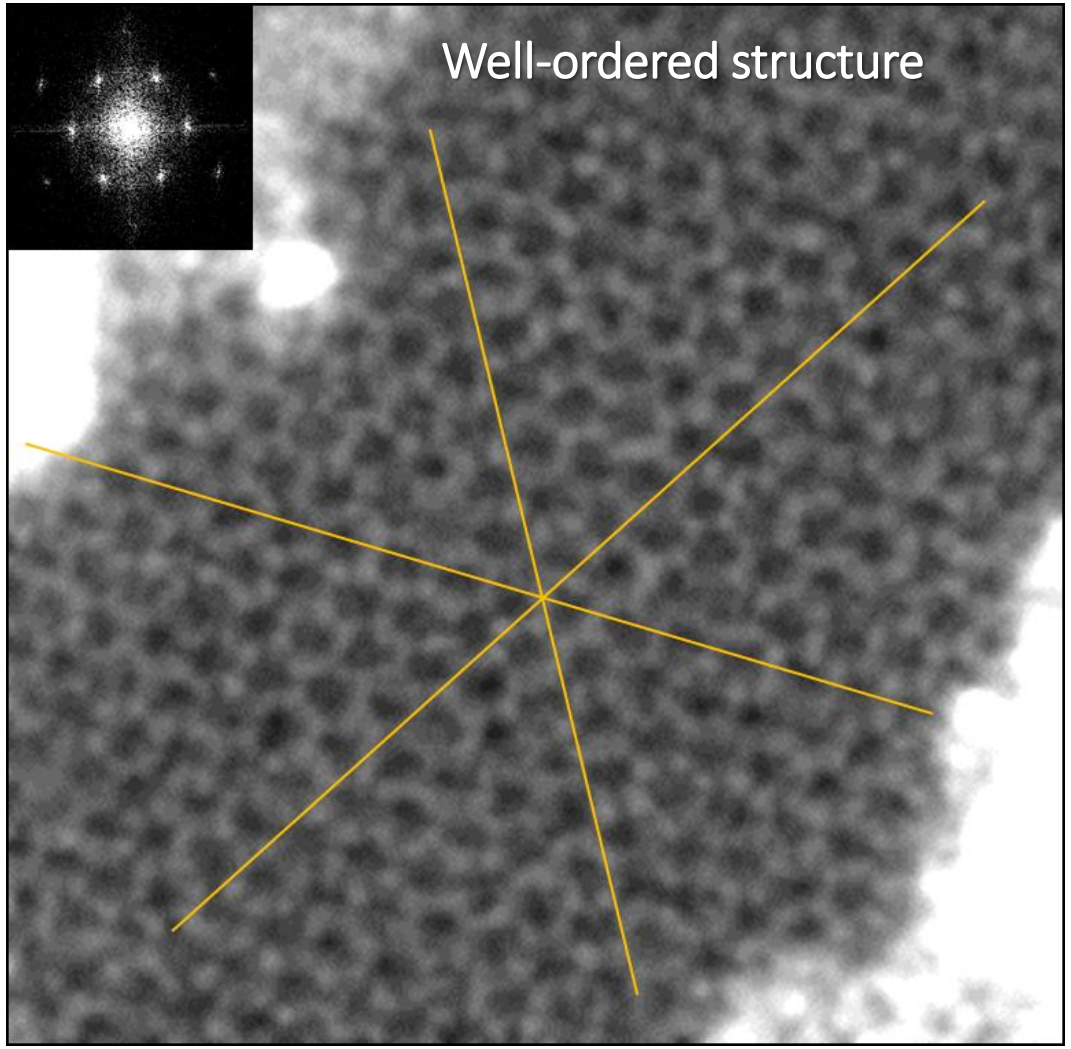
Different crystal quality of graphene oxide

STEM





First toxicity tests performed in 2022 and 2023

UNIVERSITA DEGLI STUDI DEL PIEMONTE ORIENTALE AMEDEO AVOGADRO (UPO)

NORSK INSTITUTT FOR LUFTFORSKNING STIFTELSE (NILU)

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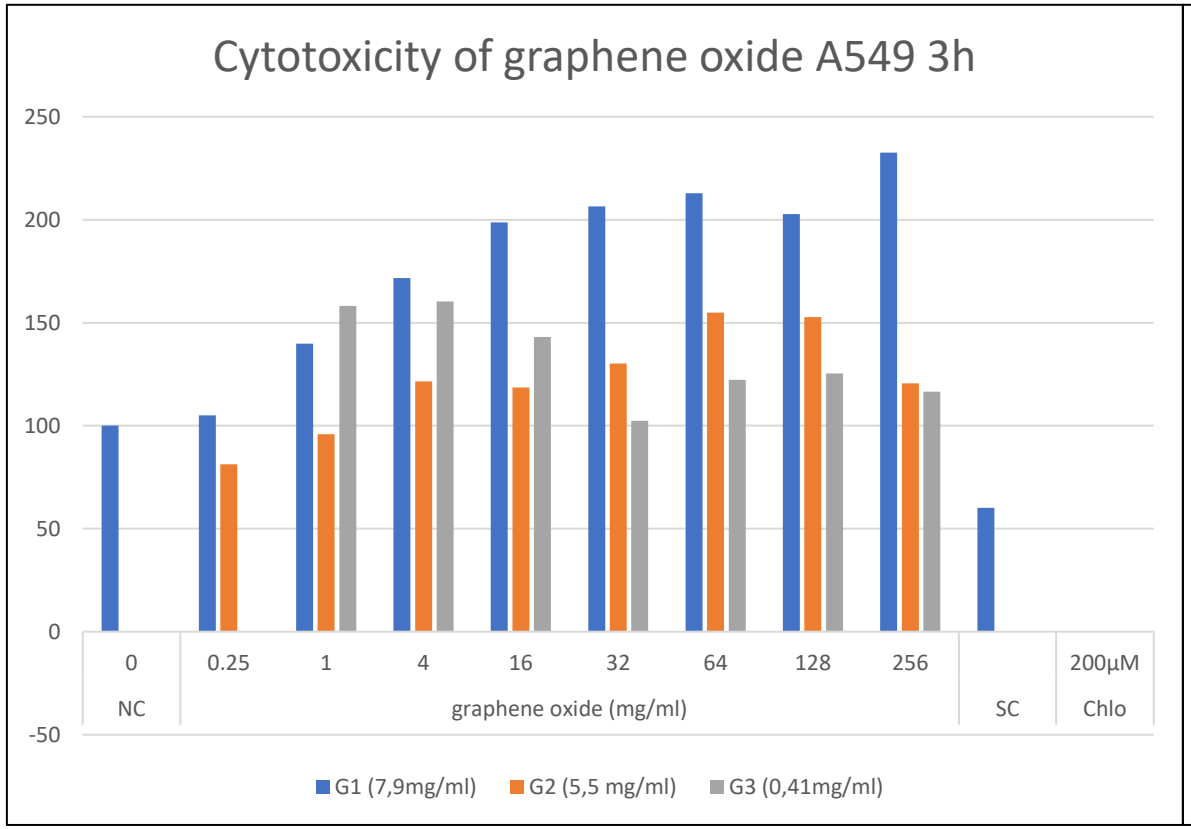
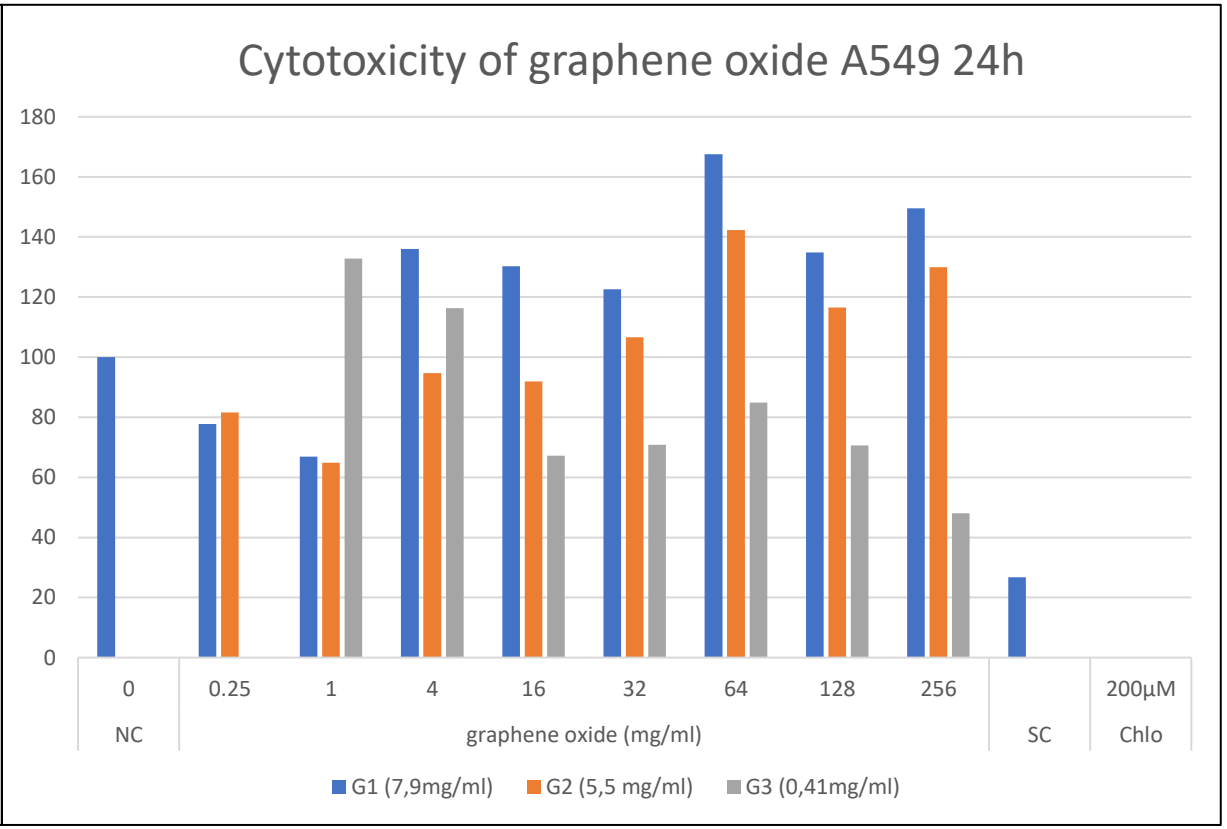
Toxicity tests done in NILU (NO)





New tests are continuing

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CompSafeNano: How to prepare a successful proposal?

No reliable answer!

Thank you for your attention