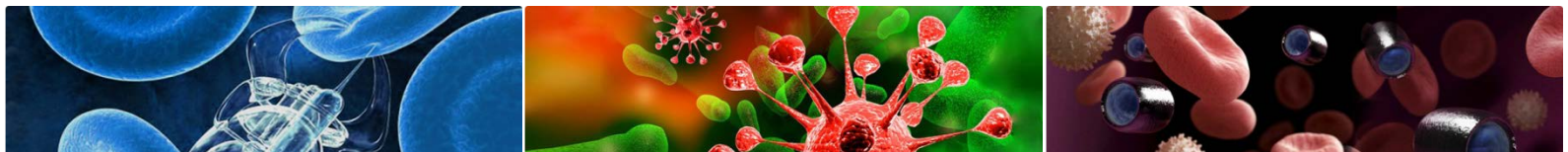


EuroNanoMed INFODAY call 2021

Paolo Decuzzi

Italian Institute of Technology
Genova – Italy



Evaluation Criteria

□ Excellence

- a. Scientific & technological quality of the proposal;
- b. Novelty; innovation potential; methodology; degree of technological maturity;
- c. “Nano value” of the proposed approach, clearly demonstrating the added value of the application of nanotechnology –
nanomedicines vs antibodies, gels, natural vesicles,....

***Nanomedicine** is the application of nanotechnology to achieve breakthroughs in healthcare. It exploits materials and methods at the nanometer scale (from one nanometer to hundreds of nanometers) that are designed to possess improved and, often, novel physical, chemical and/or biological properties.*

Nanomedicine has the potential to enable early detection and prevention of diseases, and to significantly improve diagnosis, treatment and follow-up of diseases. It is perceived as embracing five main sub-disciplines that in many ways are overlapping and underpinned by the following common technical issues:

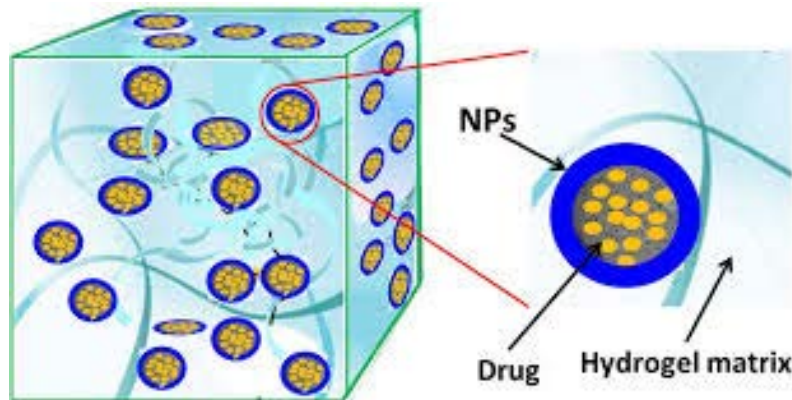
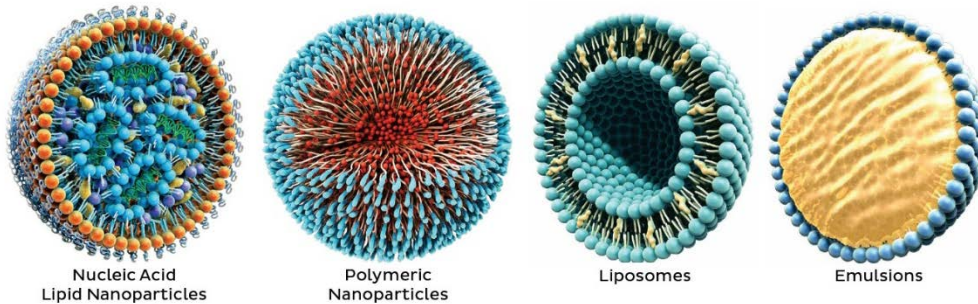
- analytical tools
- nanoimaging
- nanomaterials and nanodevices
- novel therapeutics and drug delivery systems
- clinical, regulatory and toxicological issues

Evaluation Criteria

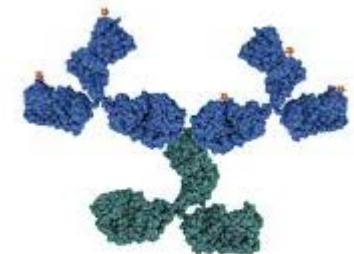
□ Excellence

nanomedicines vs antibodies, gels, natural vesicles,....

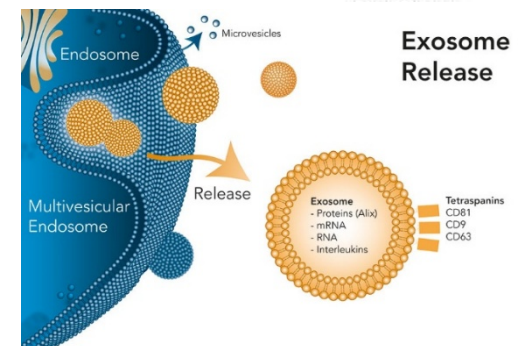
nanotechnology



biotechnology



IgG complex
>300kDa
20-30nm



Evaluation Criteria

□ Excellence

d. Quality of the project consortium: international competitiveness of participants in the field(s), previous work and expertise of the participants, benefit of the transnational collaboration, participation of junior researchers –



demonstration of previous collaborative efforts (scientific papers, grants,...);

especially with non-EU partners (MTA, shipment, custom,);

girls vs boys vs young vs senior
(in leadership positions!)

junior researchers *(in leadership positions!)*;
2 y < age < 10 y



Evaluation Criteria

□ Impact

a. Unmet medical need addressed



details on the medical need with societal impact and costs



clinical reviewers

and potential impact in clinics –

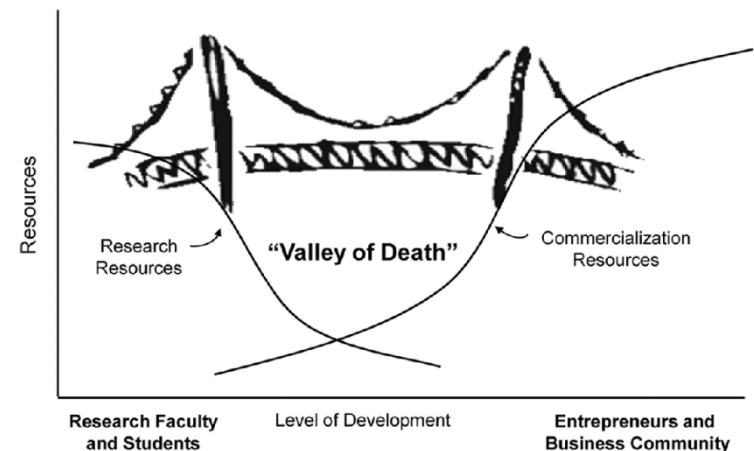
patents, **documented** experience in translational research (at the **PI level** in addition to Institution), **involvement** of Industry/Private sector (not always needed but...), inclusion of medical doctors and **clinical scientists (human samples + guidance!)**



industry reviewers

b. Translatability and marketability of the proposed approach;

within the duration of the project (full **preclinical proof of concept** needed!) after the duration of project (**truly innovative project** is key)



□ Impact

c. Added value of the transnational collaboration;

avoid redundancy (too many synthesis groups, too many animal experts,...), leadership of the Work Plan, quasi-equal sharing of the overall workload, **different countries (Taiwan and Egypt,...)** 👍

d. Innovation applied research projects: potential impact of expected results in different domains of nanomedicine or cross-KET applications, marketability potential, quality of the dissemination and exploitation plan;

Applicability to different domains (often speculation of the reviewer rather than proposers);

management, dissemination, exploitation

As separate WorkPlans (especially for projects with high potential of applicability);



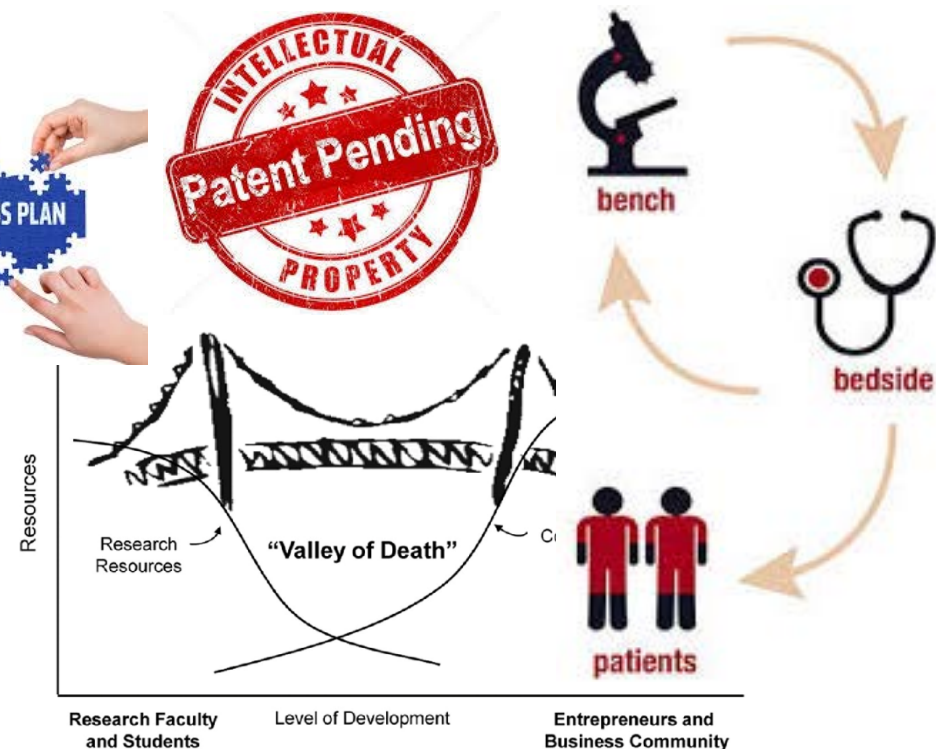
Evaluation Criteria

Impact

e. Projects with high potential of applicability at short/medium term: expected time for market/transfer to patient towards clinical/public health applications, pharmaceutical/health device applications, other industrial applications including market and end user's scenario, quality of dissemination, exploitation and business plan.

Dissemination (OK) but Exploitation (MORE):

- plan for clinical testing;
- plan for patenting;
- plan for regulatory approval
- business model
- source for additional funding (angel investors, venture capitals, grants, ...)
- scaling-up strategy

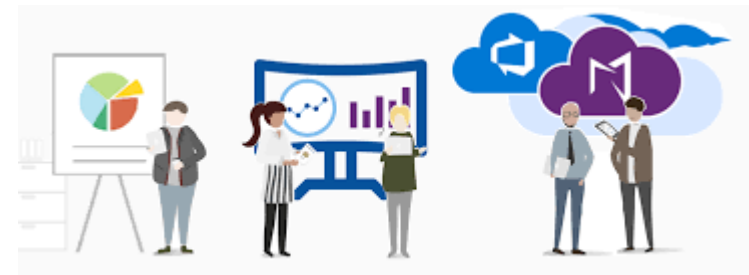
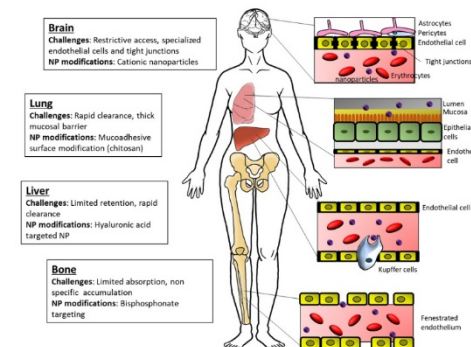
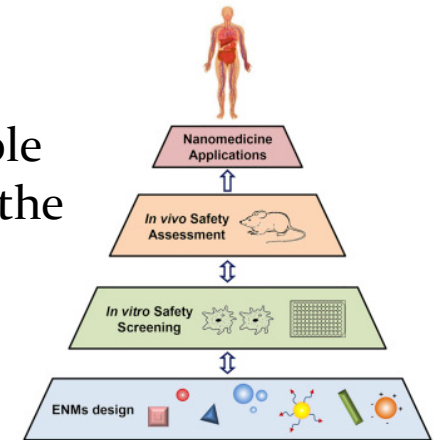


Evaluation Criteria

Impact

f. Risk assessment, safety, regulatory, ethics and other Responsible Research and Innovation (RRI) issues properly addressed (fit to the type of research to be performed).

- always! include a preclinical safety analysis and biodistribution analysis of the product (in-vitro is not sufficient!)
- especially for new materials and non biodegradable materials
- use patient derived materials (cancerous cells, blood, urine, tissue samples);
- clinicians, industry, regulatory scientist to address early translational issues: *scaling up of the technology, safety!*
- broad dissemination, beyond the specific scientific community (*future scientists!*)



Evaluation Criteria

Quality

a. Quality of project plan

PROPOSED WORK (MAX. 2 PAGES)

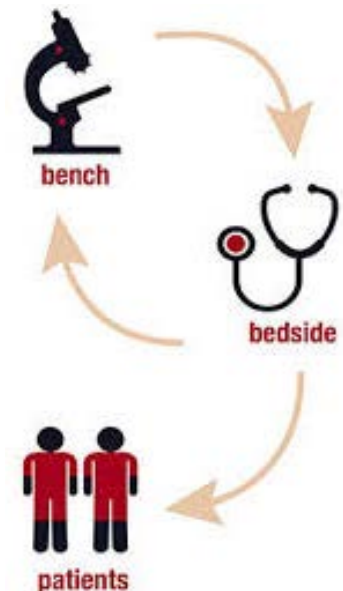
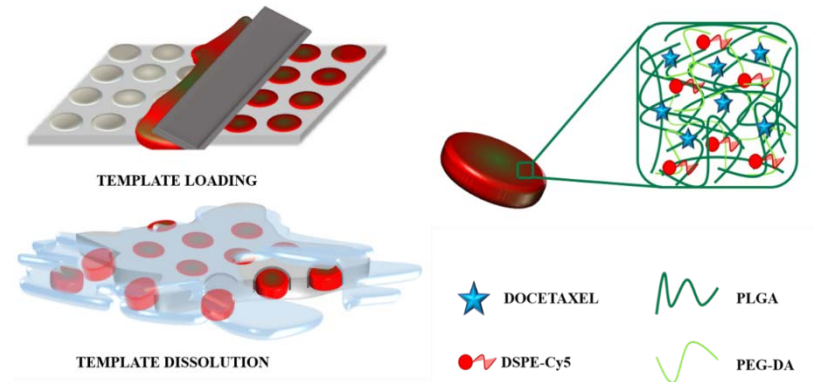
- brief recap on the main idea (**Figures!**)
- nanodimension
- technology readiness levels (**TRL**)
- patent situation and competitors
- unmet medical need

PRELIMINARY RESULTS (MAX. 2 PAGES)

- **details, details and details**
- use all 2 pages;
- in-vitro for “innovative projects”
- In-vivo/in-human for “projects with high potential of applicability”

RESUBMISSION and CHANGES IN THE PROPOSAL BETWEEN THE PRE- AND FULL-PROPOSALS (MAX. 1 PAGE)

- point-by-point explanations. **Resubmissions are often successful!**



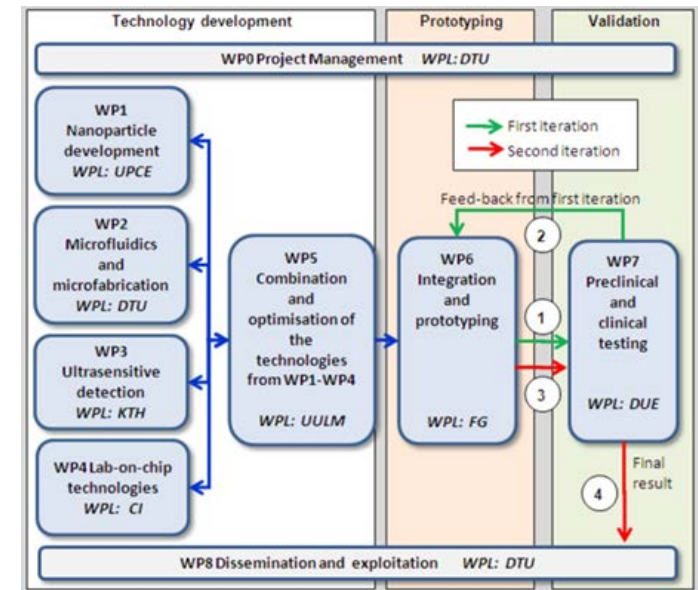
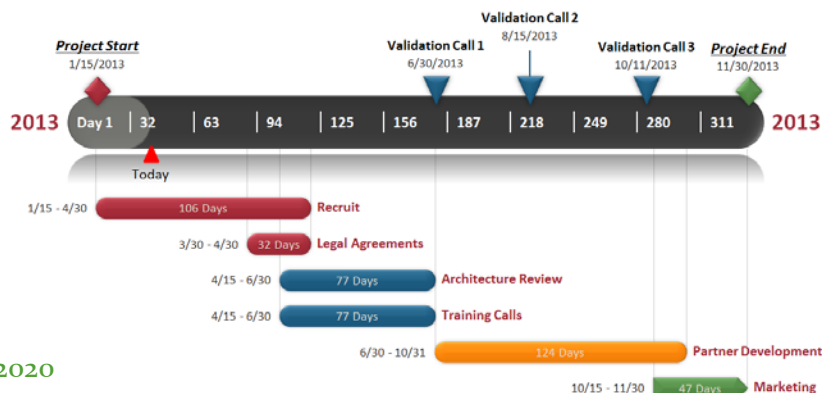
Evaluation Criteria

Quality

a. Quality of project plan;

WORK PLAN INCLUDING REFERENCES (MAX. 9 PAGES)

- ✓ clearly state the aims (typically 2-3 aims for a 3-year project: **synthesis, in vitro characterizations, in vivo validation**)
- ✓ clearly present Work Packages as connected to the aims (**WP1** – synthesis; **WP2** – invitro characterizations; **WP3** – in vivo modeling; **WP4**: management and dissemination; WP5: exploitation; ...)
- ✓ specify WP leader and duration
- ✓ specify role of each Partner in the WP (**balanced**)
- ✓ risk assessment (pitfalls and mitigations)
- ✓ **details, details and details**



Evaluation Criteria

☐ Quality

d. Scientific justification and adequacy of the requested budget.

- ✓ co-funding always desirable  (salaries from Institution, partial coverage of consumables, intramural funding,)
- ✓ co-funding from Industrial Partners always super desirable 
- ✓ consumable costs needs to be commensurate to the proposed work (roughly: $500 - 1,000\text{€} \times \text{person} \times \text{month}$) 
- ✓ purchasing of a significant piece of equipment  *Choose another partner?* 
- ✓ possibly balanced across all the partners....depending on the contribution to the research activities (in-vitro is generally less expensive than in-vivo).



□ Short CV and Key Publications

write a clear text with **distinct paragraphs**

- education;
- professional experience (connected to the topic of the proposal);
- awards and leadership roles;
- international collaboration (and collaborations within the Consortium);
- patenting and exploitation activities;
- teaching and supervision activities;
- industry / clinical responsibilities.

5 key publications

mixture of publications on high impact journals and specialistic journals, related to the topic of the proposal

Example Person | Teaching Assistant

Location: XXXXX
Telephone: XXXXXXXXXXXXXXX
Email: XXXXXXXXXXXXXXX

Personal Profile

'Accomplished Primary School Teaching Assistant with a proven track record supporting teachers in the education and development of pupils'

With extensive experience working within primary schools as a teaching assistant, I have the organisational skills to assist with the planning and preparation of successful lessons, monitor children's learning and assess pupils as well as the ability to encourage children to learn through motivation and positive behaviour. I have a good knowledge of primary school policies and procedures including welfare and safety standards as well as a creative attitude towards teaching and the self awareness to lead by example in showing children how to be socially responsible.

Core Skills

- Teaching Support
- Early Years & KS1 Curriculum
- Level 3 Supporting Teaching & Learning
- Safeguarding & Welfare
- Behaviour Management
- Classroom Preparation
- One-to-one & Group Support
- EAL & SEN Support

Big
Clear
Headings

Career Summary

Nov 2013 – Present School
Year 1 Teaching Assistant

Outline

Working within a KS1 class of 23 children; supporting pupils and teacher in the delivery of lessons and ongoing development of all pupils

Key Responsibilities

- Working closely with class teacher to prepare lessons with books and equipment
- Liaising with teacher to ensure I am aware of lesson expectations and learning needs
- Keeping an up to date knowledge of school readings schemes, policies and procedures
- Supporting teacher with behaviour and classroom management



Miscellanea

□ Rebuttal letters

- ✓ point-by-point reply with proper details and clear references to the literature (preferably paper of the consortia)
- ✓ use a 'diplomatic' tone.....



□ Title and Abstract

- ✓ write a short and clear Title
- ✓ Identify a short and catchy Acronym
- ✓ write a crystal clear Abstract:
introduce the unmet medical need, illustrate the technology for addressing the need, elaborate on the methods/steps for developing and validating the technology, conclude with potential exploitation

Title and Abstract already decide if the reviewer is interested in reading more....



