Jak zdobyć grant ERC?

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Dlaczego warto?

After 15 Years, a Success Story

Over **10,000** top researchers funded since the ERC creation in 2007

Over **200,000** articles from ERC projects published in scientific journals

Over **75,000** researchers and other professionals employed in ERC research teams

Over **850** research institutions hosting ERC grantees – universities, public or private research centres in the EU or Associated Countries

Over **2,200** patents and other IPR applications generated by ERC funding

85 nationalities of grant holders

Over **400** start-ups identified as founded or co-founded by ERC PIs

9 Nobel Prizes, **4** Fields Medals, **11** Wolf Prizes and other prizes awarded to ERC grantees

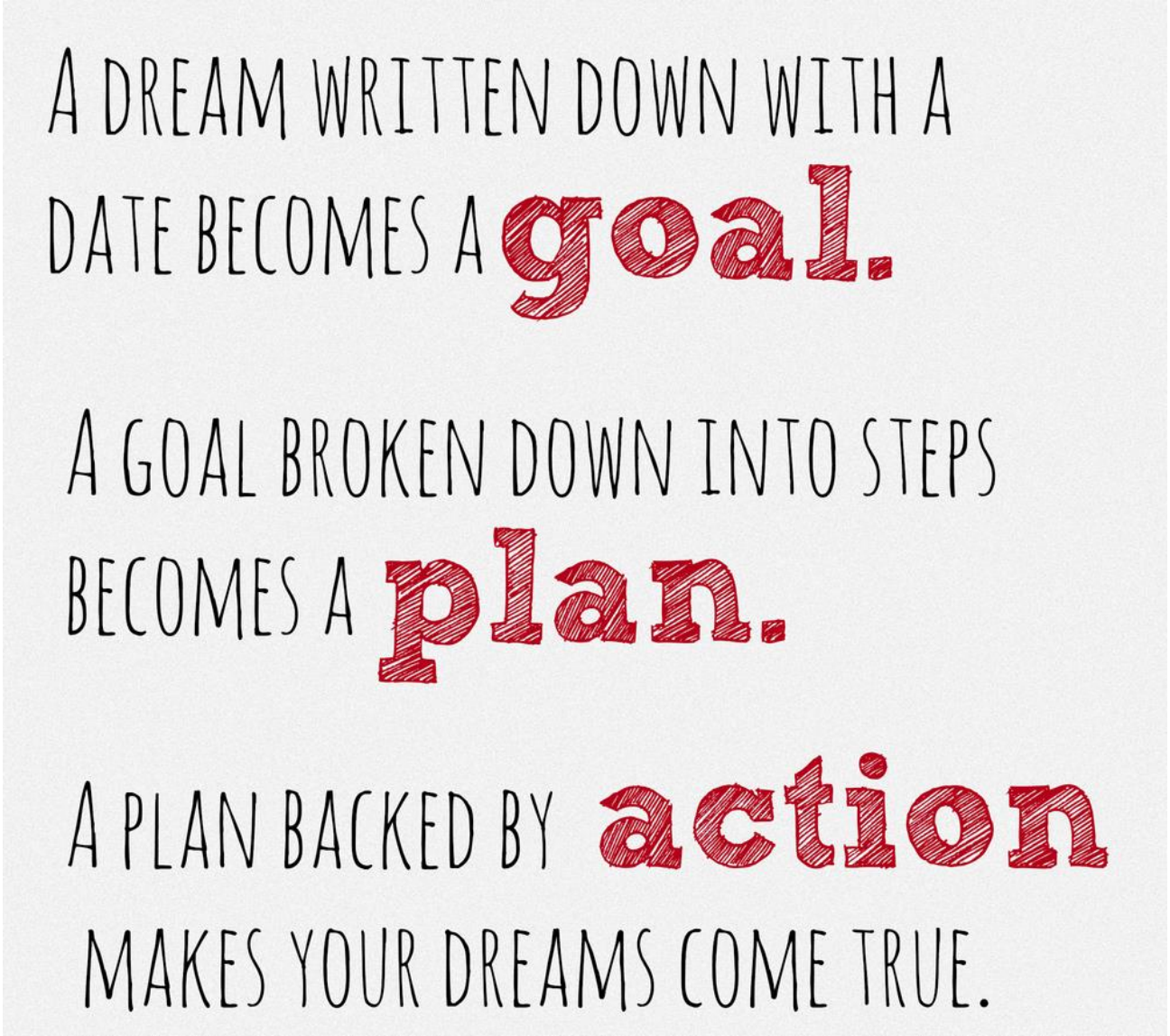
Dlaczego Tobie powinno zależeć?

Co daje grant ERC?

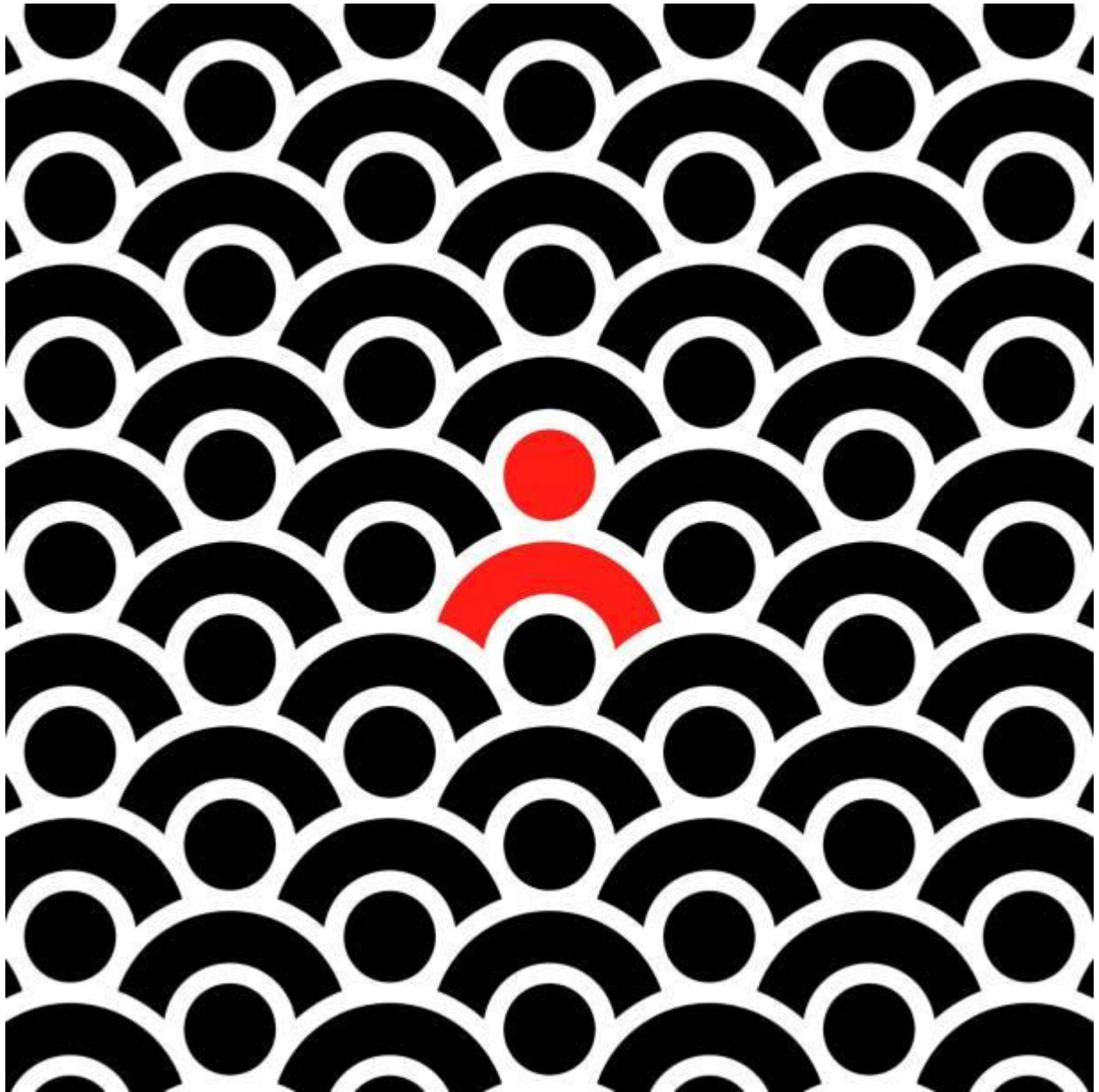
- Solidne finansowanie
- Duża elastyczność
- Nowa kadra
- Lepsze warunki

- Poddanie się ocenie
- Wyzwanie
- Sprawdzenie siebie

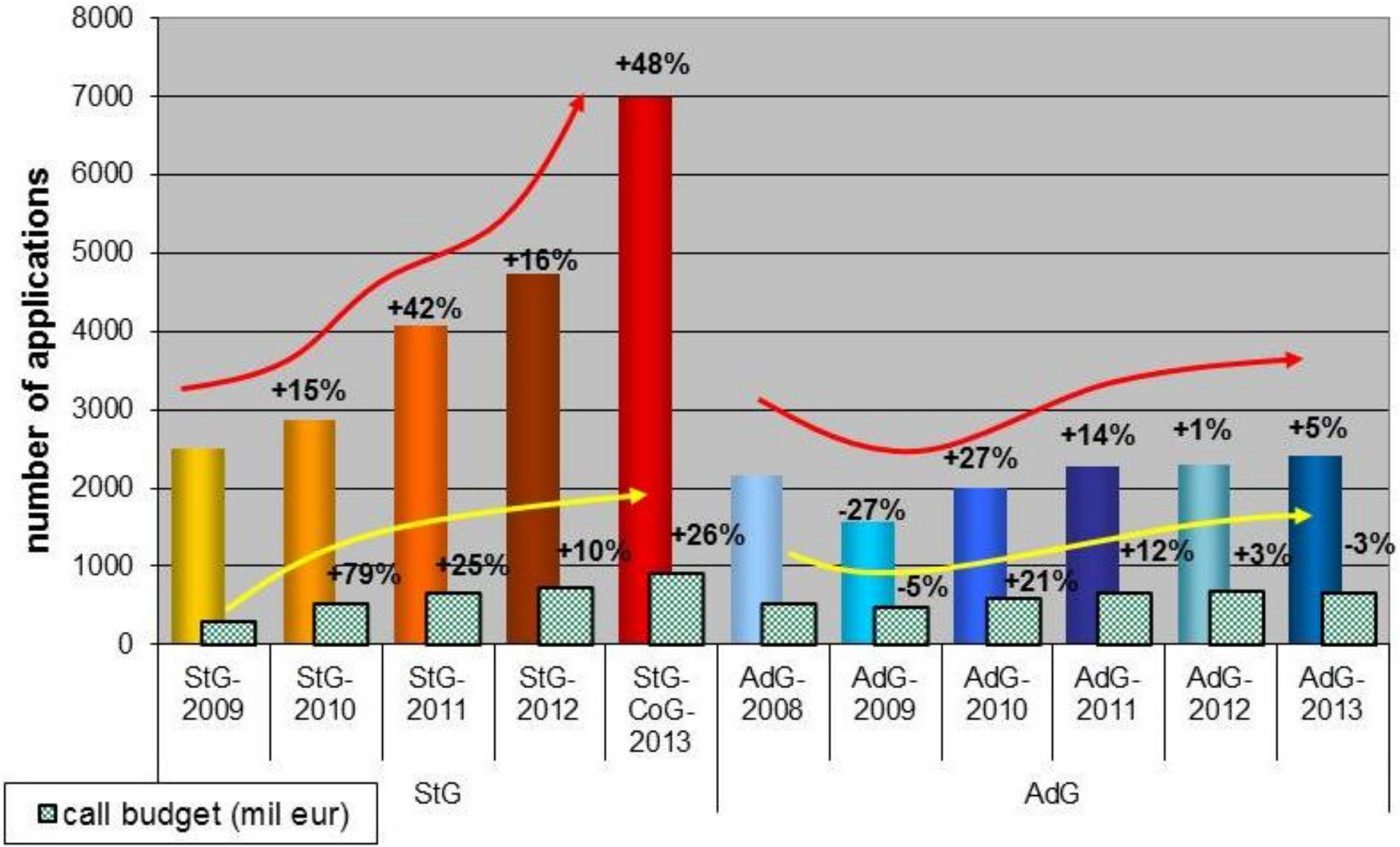
Jak zacząć?


A DREAM WRITTEN DOWN WITH A DATE BECOMES A goal.
A GOAL BROKEN DOWN INTO STEPS BECOMES A plan.
A PLAN BACKED BY action MAKES YOUR DREAMS COME TRUE.

Trzeba wyróżnić się z tłumu

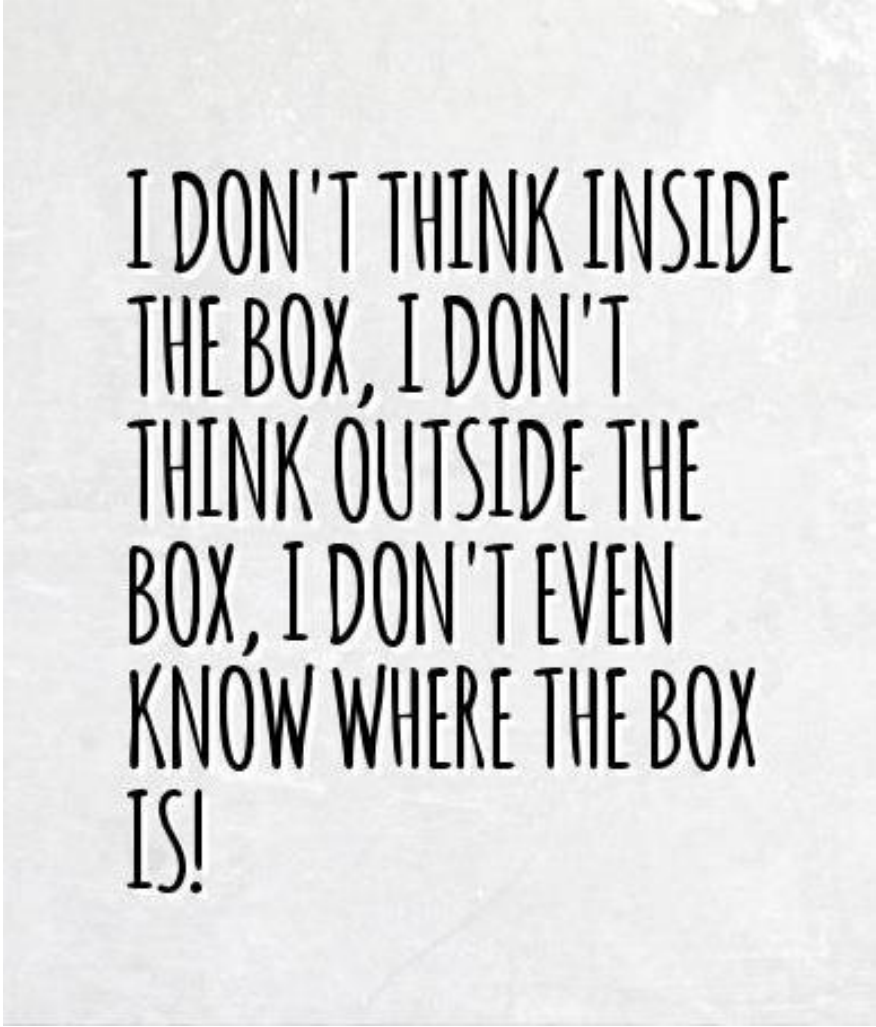


Dlaczego to takie ważne?



Jak go zdobyć?

- **Pomysł**
- Przemyślany plan
- Przemyślane CV
- Zbudowanie spójnej historii



Przygotuj się od strony formalnej

- Przeczytaj wszystkie dokumenty, fora, blogi
- Przygotuj dokumenty i AKTUALNE szablony
- Deadline nieubłagalny
- Wprowadź dane do systemu
- Wygeneruj swój wniosek

Strategia to podstawa

- Sprawdź jak granty są skonstruowane i oceniane

- Popatrz na CV/projekty przyznane

- Spotkaj się z panelistami/laureatami

- Poproś o ocenę CV

Warto prześwietlić panele

Life Sciences

- LS1 Molecular & Structural Biology & Biochemistry
- LS2 Genetics, Genomics, Bioinformatics & Systems Biology
- LS3 Cellular and Developmental Biology
- LS4 Physiology, Pathophysiology & Endocrinology
- LS5 Neurosciences & neural disorders
- LS6 Immunity & infection
- LS7 Diagnostic tools, therapies & public health
- LS8 Evolutionary, population & environmental biology
- LS9 Applied life sciences & biotechnology

Social Sciences and Humanities

- SH1 Markets, Individuals and Institutions
- SH2 The Social World, Diversity, Institutions and Values
- SH3 Environment ,space and population
- SH4 The Human Mind and its complexity
- SH5 Cultures & cultural production
- SH6 The study of the human past

Physical Sciences & Engineering

- PE1 Mathematics
- PE2 Fundamental constituents of matter
- PE3 Condensed matter physics
- PE4 Physical & Analytical Chemical sciences
- PE5 Materials & Synthesis
- PE6 Computer science & informatics
- PE7 Systems & communication engineering
- PE8 Products & process engineering
- PE9 Universe sciences
- PE10 Earth system science

Projekty interdyscyplinarne - międzypanelowe

Struktura grantu

- Część administracyjna (Part A)
- Grant (Part B)
- B1: Skrócony opis projektu (5 stron)
  CV (2 strony)
  Opis innych projektów
  Życiorys (2 strony)
- B2: Główny projekt (15 stron) - recenzenci
- Deklaracja etyczna
- Załączniki

PANEL1

PANEL2

Co jest oceniane?

Projekt

CV

Formularz recenzenta

ERC Grant Schemes

Guide for Peer Reviewers

Applicable to the ERC Starting Grants

1. Principal Investigator: Potential to become an independent research leader ***Quality of research output:*** Has the Principal Investigator published in high quality peer reviewed journals or the equivalent? To what extent are these publications ground-breaking and demonstrative of independent creative thinking and capacity to go significantly beyond the state of the art? ***Intellectual capacity and creativity:*** To what extent does the Principal Investigator's record of research, collaborations, project conception, supervision of students and publications demonstrate that he/she is able to confront major research challenges in the field, and to initiate new productive lines of thinking?	4 / 5
2. Quality of the proposed research project ***Ground-breaking nature of the research:*** Does the proposed research address important challenges in the field(s) addressed? Does it have suitably ambitious objectives, which go substantially beyond the current state of the art (e.g. including trans-disciplinary developments and novel or unconventional approaches)? ***Potential impact:*** Does the research open new and important scientific, technological or scholarly horizons? ***Methodology:*** Is the outlined scientific approach (including the activities to be undertaken by the individual team members) feasible?	3.8 / 5
Total mark	7.8 / 10
Has the proposal passed the threshold (8/10)?	No

Efekt „WOW”

Jak to zrobić?

- Oryginalny, ambitny i przełomowy, **NIE kontynuacja**
- **High risk – high gain (Plan B, szacowanie ryzyka)**
- Pozycjonuj go względem istniejącego stanu nauki
- BARDZO konkretny
- BARDZO logiczny

Streszczenie i tytuł

- Krótkie i klarowne
- Krótki i chwytny akronim (http://acronymcreator.net/)
- Projekty, które nie mogą być finansowane gdzie indziej – przekonaj ich!
- Gotowy przynajmniej na miesiąc przed czasem
- Poproś panelistów/kolegów/specjalistów/KPK aby przeczytali

Opis projektu – „graficznie apetyczny”

- Zrozumiały dla wszystkich (żargon, skróty)
- Wyniki wstępne
- Wykresy, zdjęcia, tabele
- Piśmiennictwo – recenzenci
- Maksymalna liczba stron
- Wykres Gantta, kamienie milowe

AGAINST

Achieving the golden Grail in solid tumor treatment

Section 1a: The idea – Breakthrough Innovation potential

1a.i. Brief description of the idea to be taken to proof of concept:

The problem

Glioblastoma is the most common and most aggressive primary brain tumor in adults[1]. The current standard of care for patients with newly diagnosted glioblastoma comprises surgery, followed by radiotherapy and chemotherapy with the alkylating agent temozolomide[2]. However, despite this multimodal treatment, it is an inevitably lethal tumor and the median survival is in the range of 15 months in clinical trial populations[2-5]. In the USA only, about 17,000 new cases of glioblastoma (GBM) are diagnosed each year and almost as many die[3]. Progress in the development of therapy is limited due to the character of this tumor[6]: (1) the blood-brain barrier restricts drug access, and the list of drugs is limited due to toxicity to adjacent nervous tissue; (2) the heterogeneity of GBM causes significant drug resistance; (3) GBM cells have the characteristics of stem cells and are resistant to therapy; (4) the immunosuppressive environment makes GBM resistant to immunotherapy; (5) GBM are highly hypoxic, which promotes tumor growth and affects drug activity.

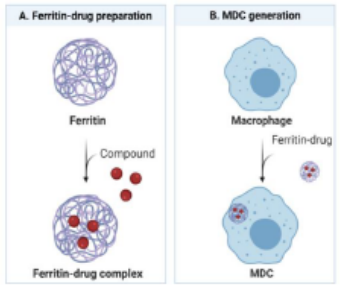


Fig. 1. Process of drug loading into ferritin cage-like protein (A) and ferritin loaded macrophage (B) forming MDC (Macrophage-Drug Conjugate).

Despite recent breakthroughs in oncology, over the past 25 years, the median survival of patients with GBM has increased only by a few months[7]. In 60–70% of patients, despite multimodal treatment, the median survival is only 12 months (population study) and less than 2 years in clinical trials[5]. In the event of a relapse, there is no effective therapy apart from potentially lomustine and regorafenib[2]. A recent Phase III clinical trials with bevacizumab (Avastin) in patients with recurrent glioblastoma ptients did not improve survival[8]. **Therefore, modern therapies with better efficiency than the current treatment standards are needed.**

The solution

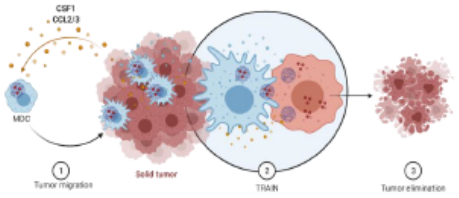


Fig. 2. Three steps of MDC technology: 1. MDC migration to solid tumor (cytokine-driven macrophage migration to solid tumor), 2. TRAIN – transfer of ferritin-drug complex from macrophage to cancer cells inside the tumor mass with subsequent drug release and cancer cell elimination (3).

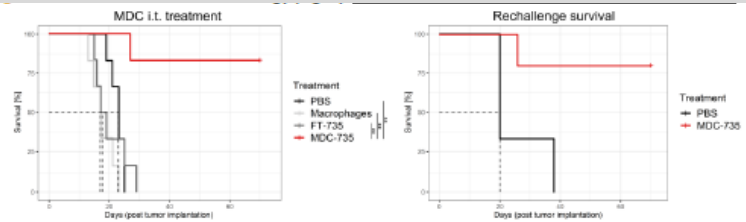


Fig. 3 Survival analysis of mice with CT-2A cold GBM treated intratumorally with: PBS, Macrophages, Ft-735 (plain ferritin containing 735 drug) and MDC-735 (left graph). These results show highly significant efficacy of MDC-735 (long-term survivals) and modulation of immune system resulting in acquisition of tumor-resistance after re-challenge (right graph).

The origin

- Within my cutting edge 'McHAP' ERC Starting Grant that was selected by the ERC as 1 of the 10 projects be promoted for the ERC 10th anniversary, we demonstrated:
  1. Identified receptors responsible for ferritin uptake by macrophages – this is important finding for therapy development because it will allow for macrophage-donor stratification in the future.
  2. Identified molecular mechanism of TRAIN – MDC Mode of Action (MOA) identified.
  3. Confirmed MDC extravasation and penetration to hypoxia sites as well as efficacy in mouse models.
- Within the first ERC Proof of Concept Grant 'TROJAN', we demonstrated:
  1. Confirmed efficacy of the MDC-735 in treatment of human platinum-refractory ovarian cancer.
  2. Confirmed efficacy and safety of the MDC-735 lung cancer treatment in allogeneic setup.
- For continuation of the 'TROJAN' project, in 2022 the EIC Transition Grant has been awarded (MACOV). The project aims to get the full pre-clinical data package for MDC in platinum-resistant ovarian cancer.

1a.ii. Demonstration of Breakthrough Innovation Potential:

By utilizing the advantages of MDCs in anti-cancer drug

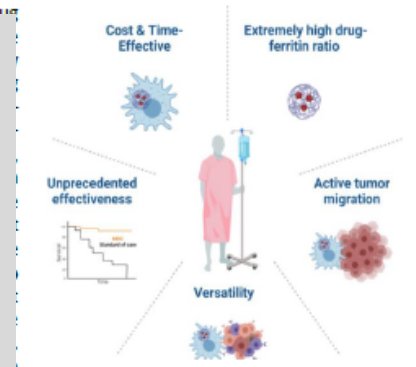


Fig. 4 The MDC approach can overcome the problems and limitations of current therapies for advanced solid tumors.

1a.iii. Demonstration of the high-risk/high-gain idea:

these potential risks and developed mitigation measures to minimize these risks (Table 1).

Description of the risk	Proposed risk-mitigation measures
The emergence of better technology in the short term (i) Low (ii) High /Work on similar problems is being carried out globally. Despite the lack of solutions, so far there is a risk of the sudden emergence of an interesting technology.	In that case the MDC technology will be compared to a much better benchmark than it is today. The rapid development of the project and quick commercialization of research results so as to take a strategic position in the pipelines of large concerns is the main defence of the PI.
Competitive, similar technology on the market (i) Low (ii) High	Package of wide patent applications. The project contains numerous innovative elements, therefore their repetition by another team is unlikely.
Delays in goods delivery and subcontracting timelines (i) Medium (ii) Medium	Cooperation with sellers/subcontractors, monitoring the situation, termination of the contract and selection of another subcontractor in the event of failure.
Economic and political turmoil may affect the possibilities of commercialization. In the short term, the global crisis (due to war on Ukraine) increases risk aversion and shifts capital to safe investments (i) High (ii) Medium	The PI will carry out the project tasks efficiently to start talks with potential partners as early as possible.

„ERC applicants are excellent in research. But they have sometimes difficulties to display their achievements and their research idea in a nice manner, because they are natural to them”

Jaki powinien być kosztorys?

- Budżet – rozsądny
- Wynagrodzenie jak w HI – także PI
- Aparatura jako amortyzacja
- Konferencje, wizyty w labach współpracujących

Dodatkowe opisy

- Instytucja goszcząca (HI)
- Zespół
- Publikacje
- Transfer technologii

CV i track record – niezwykle istotna część

- Dowód doskonałości i niezależności
- Bez pustych stwierdzeń – tylko fakty


I cannot change
yesterday, but I
can change today.

Co jest brane pod uwagę?

Publikacje

Wyjazdy

Współpraca

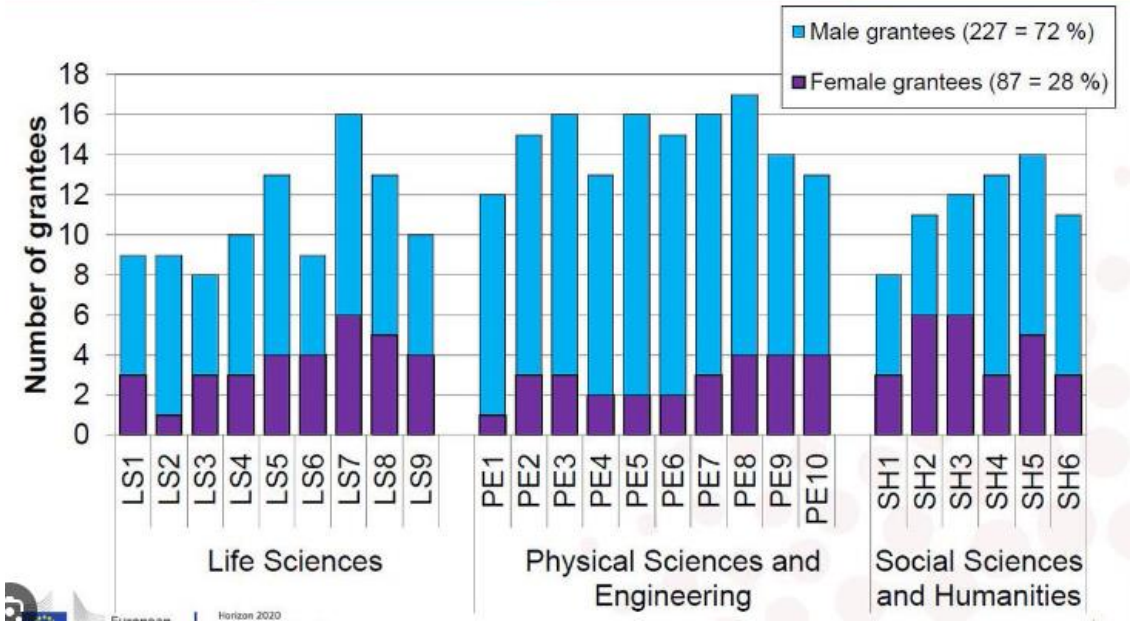
Mentor vs. niezależność

Granty

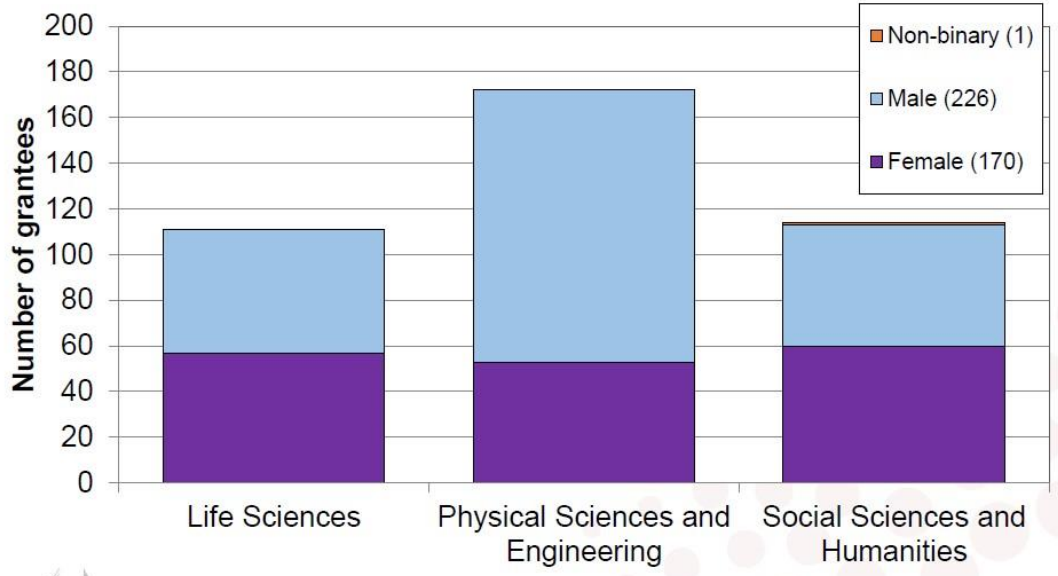
Nagrody

Czy płeć ma znaczenie?

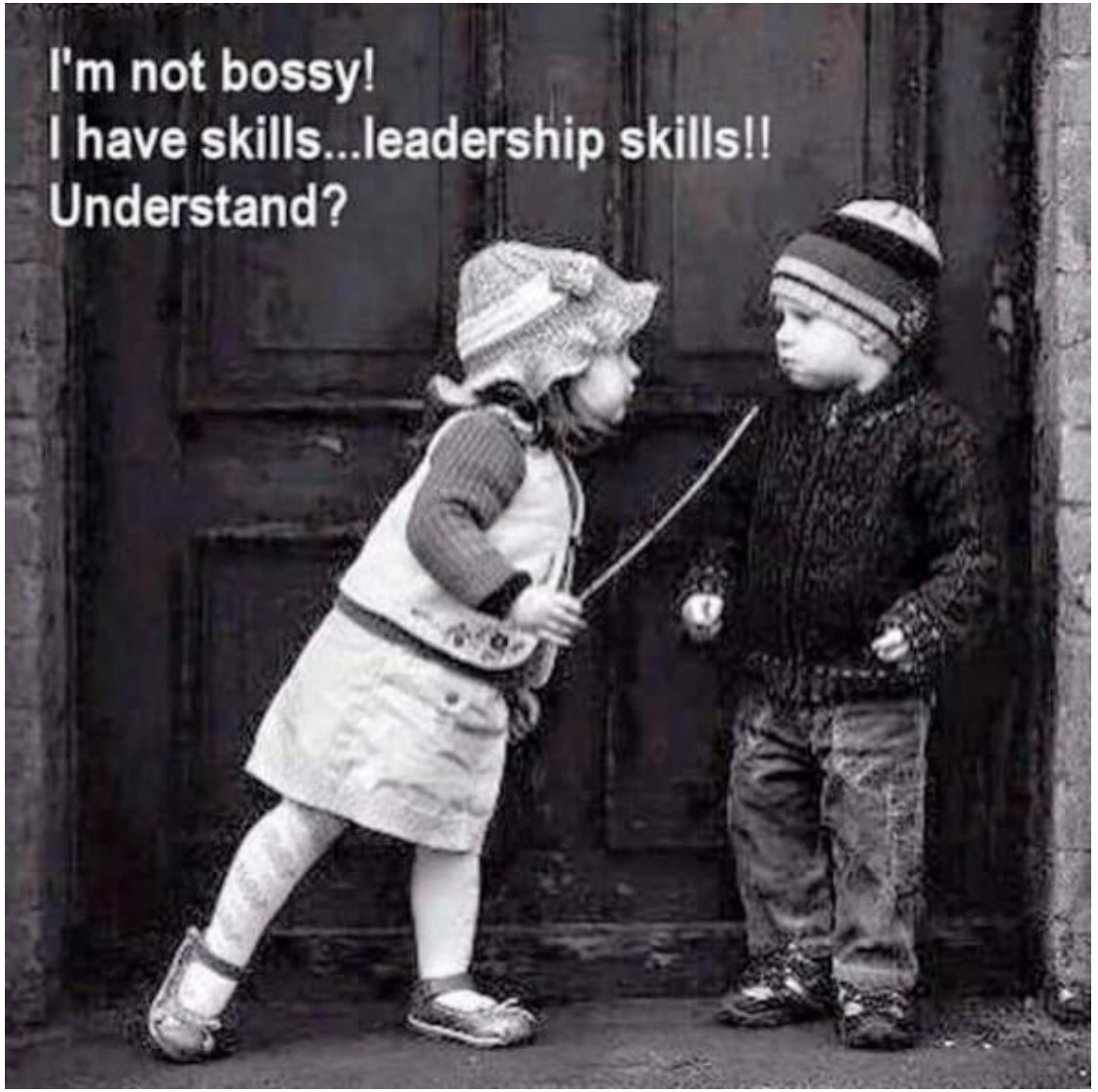
ERC Consolidator Grant 2016
Grantees by panel and gender
Total 314 grants



ERC Starting Grants 2021
Grantees by domain and gender
Total 397 grants



Early achievements track record



Jak zrobić dobre wrażenie?

- Jak list motywacyjny o pracę
- Spójny z CV
- Opis osiągnięć
- Rozpoznawalność naukowa
- Inspiracja młodych naukowców
- Zmienianie dyscypliny naukowej
- Aktualna pozycja/ sytuacja
- Strona internetowa
- Tłumaczenia zwrotów nieanglojęzycznych
- Doskonałość rzucająca się w oczy! Sprzedaj się...

Jak go sformułować?

- Udokumentowany: „I have participated in many international projects“ vs. LISTA

- Precyzyjny: „I established / I identified / I demonstrated / I initiated / I was awarded …”

- Podsumuj pracę: „more than 30 original articles in international peer reviewed journals as main author…“

Highest GPA award in Civil Engineering	**BAD**
Highest GPA award in Civil Engineering (1^{st} in a class of 130, admission rate: 25%)	**GOOD**
My ability to create new research fields is out of question	**VERY BAD**
Demonstrated ability to create new research fields	**BAD**
I did a postdoc at Harvard. I started a new research field in the lab. It was my own idea. When I left, 2 PhD students and 3 Postdocs were working on that field	**GOOD**

Ogólne uwagi

- Tytuł i streszczenie czytane jako pierwsze (jedyne?)
- Lista publikacji jako druga
- Skakanie pomiędzy stronami – dobra organizacja i rzucanie się w oczy ważnych informacji
- Trzy grupy: A) najlepsza, B) średnia, C) out
- Dużo grantów do przeczytania. Mało czasu. Miej litość: ułatw im pracę.
- Bez znaczenia: narodowość, płeć, wiek, wielkość dofinansowania

Warto posłuchać panelistów...

„An applicant who does not take his time to write a clear and nice proposal delegates the work to the evaluator, because the evaluator then has to struggle through the proposal to find the essence. The more the applicant can save the time of the evaluator, the better is his chance. An evaluator never has enough time“.

„In the top 15% everybody deserves the grant. If a person is in the top 15%, a nice proposal can make the difference”.

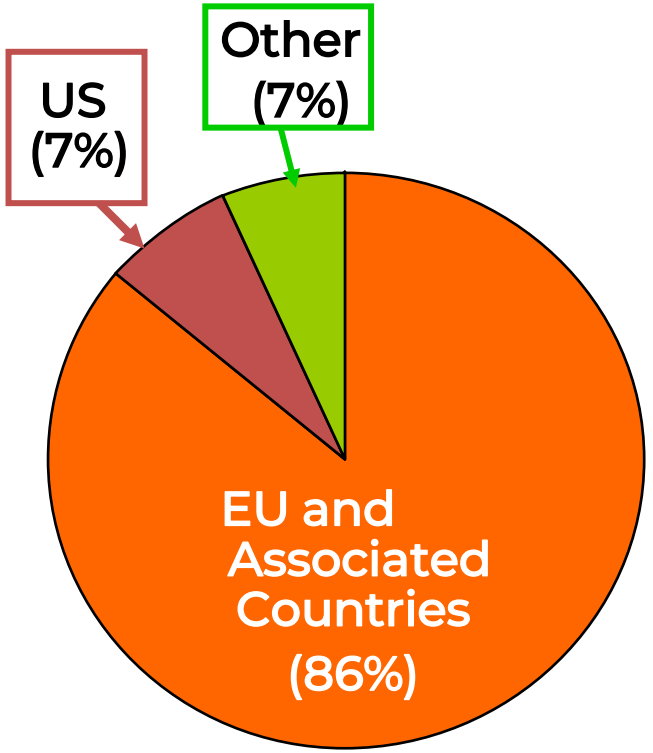
Przeszliśmy do interview i co dalej?

„Dziś świętujesz, od jutra ciężko pracujesz”

Prof. dr hab. Marta Miączyńska

Z kim mamy do czynienia?

- **Paneliści:** 375 / konkurs
  - Naukowcy „z górnej półki”
  - Z całego świata: ~14% spoza Europy
  - 12-16 panelistów + przewodniczący
- **Recenzenci:** zazwyczaj >2000 / konkurs
  - Recenzje tylko wybranych projektów
  - Jak w czasopismach
  - 3-8 recenzji na projekt



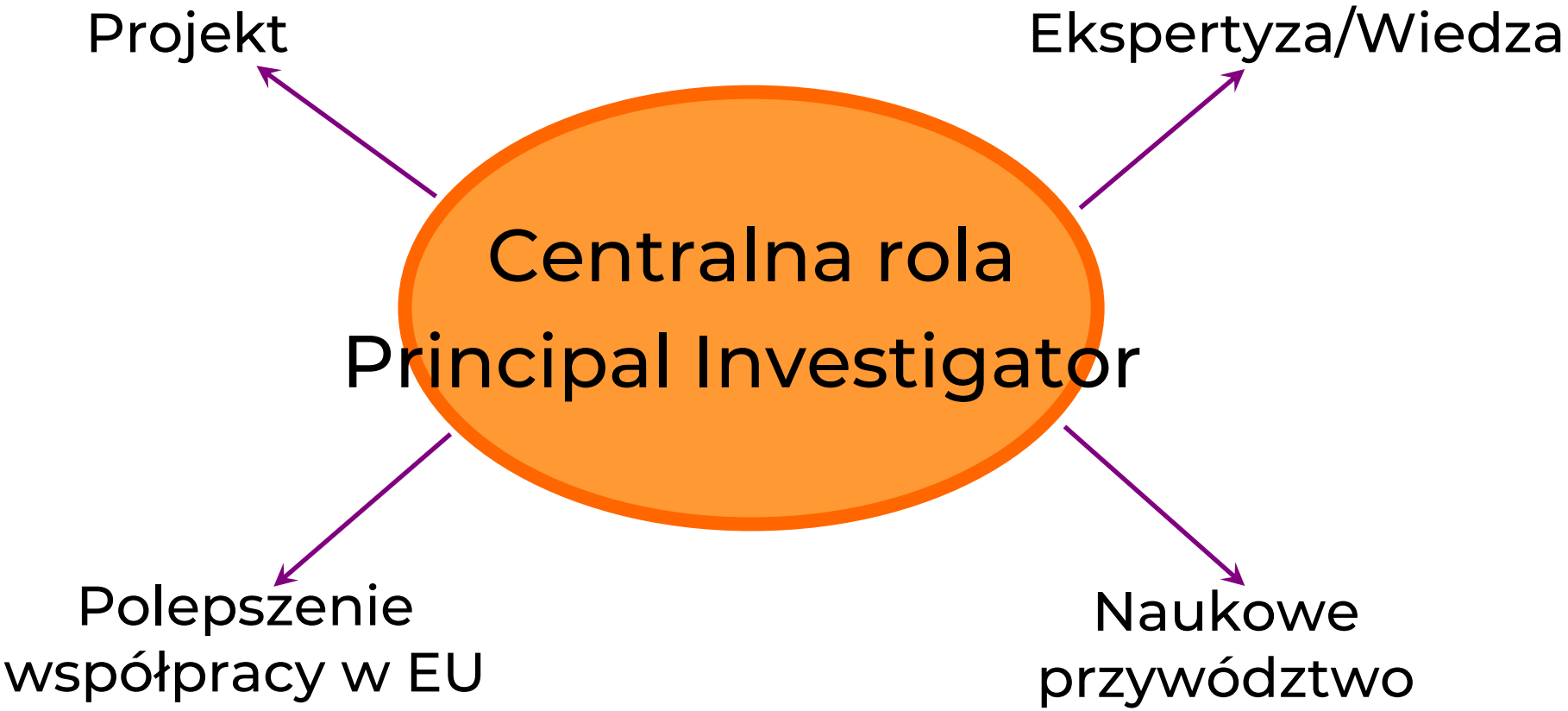
Prezentacja

- Doskonała graficznie
- Spójna
- Dokładnie tyle minut, jak w instrukcji
- Slajd o karierze, potem: ½ założeń/badań wstępnych; ½ planu badań
- Ok. 30 wersja jedzie do Brukseli
- Ćwiczyć, ćwiczyć, ćwiczyć… i jeszcze raz ćwiczyć…
- Nie panikować!

Rozmowa/panel

- Pytania do grantu
- Pytania do prezentacji
- Pytania standardowe
- Być sobą
- Żartować

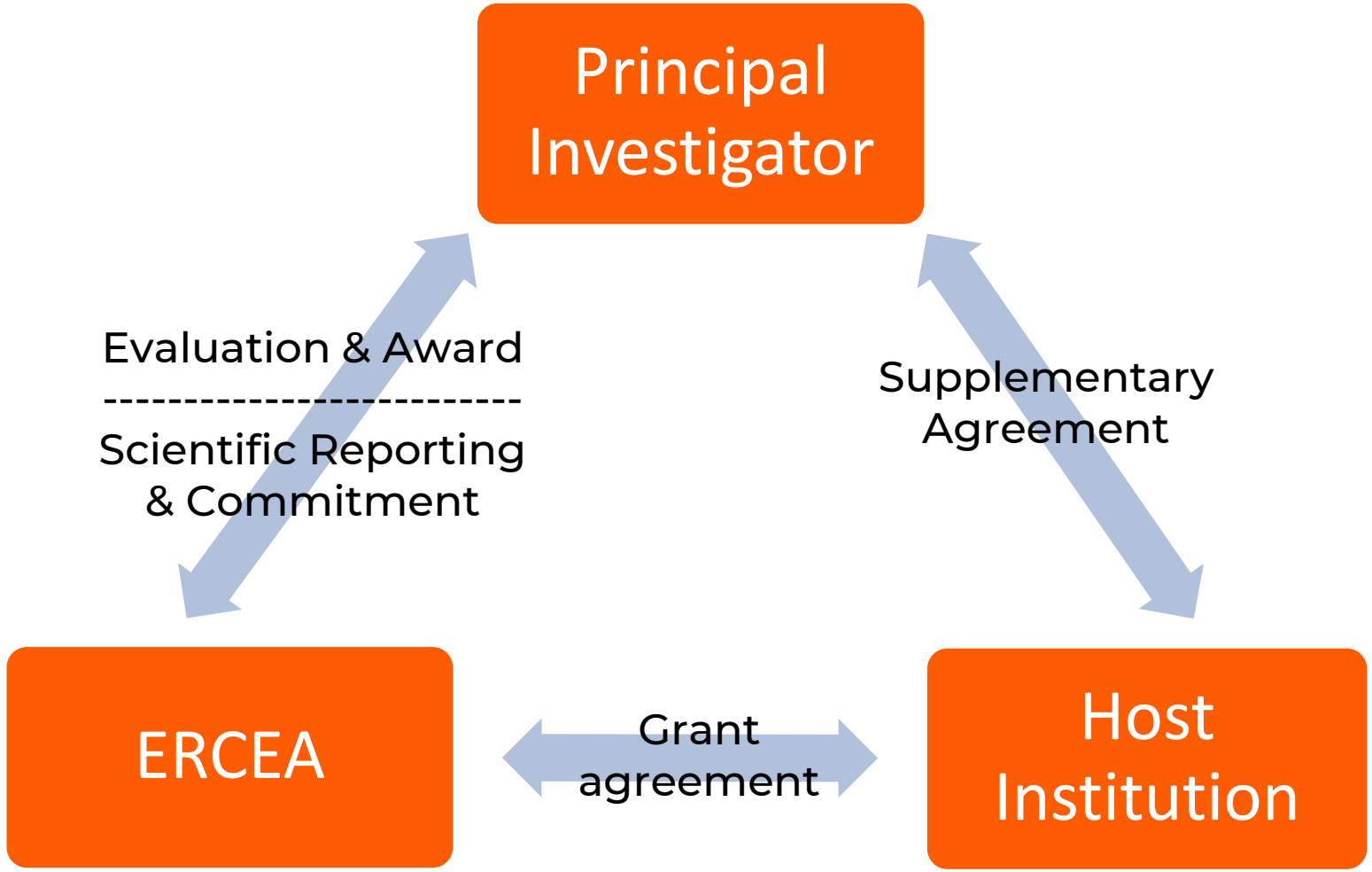
PI

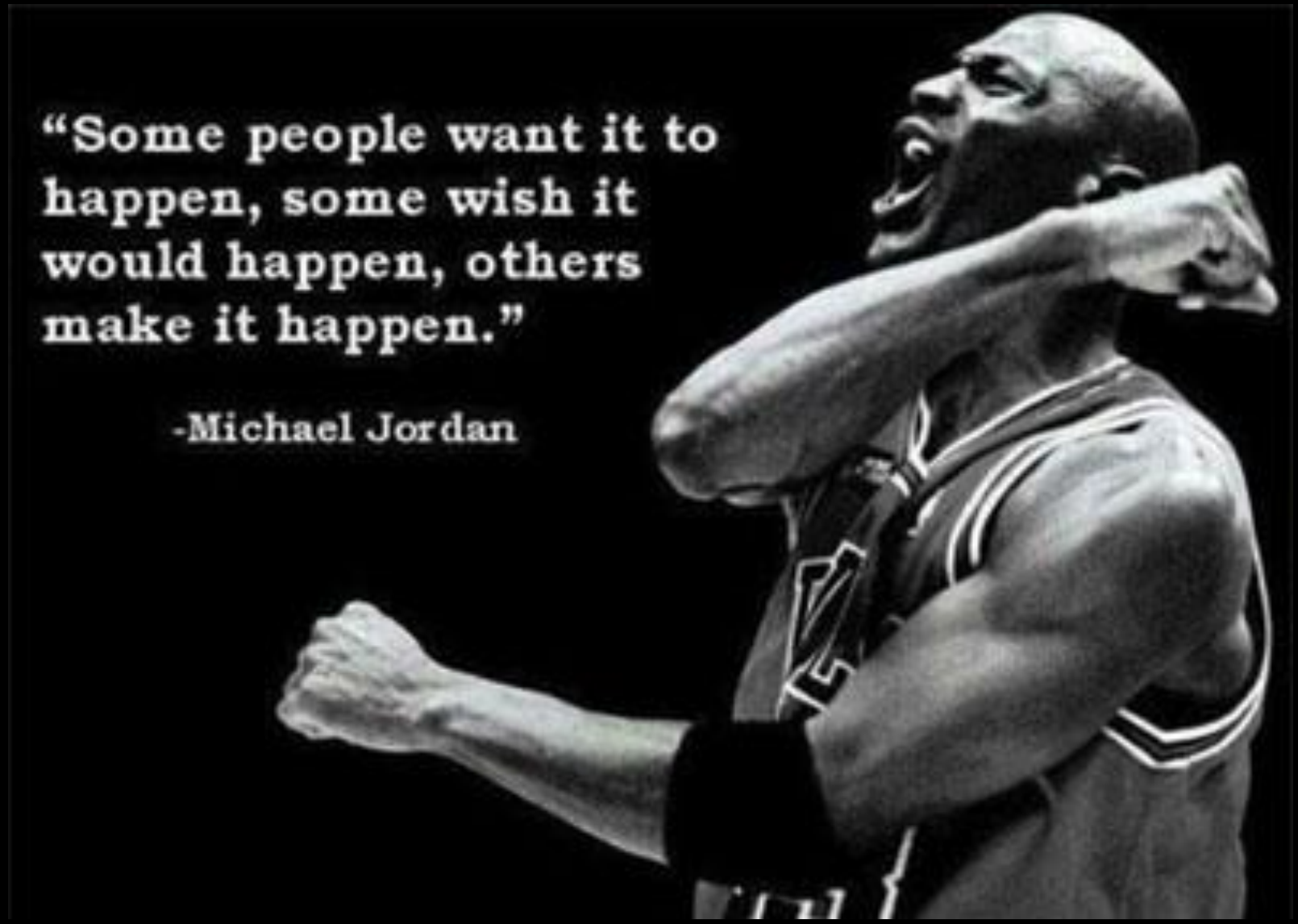


Nie można zamienić PI

BEZ PI ➡ NIE MA GRANTU ERC

Umowa grantowa




“Some people want it to happen, some wish it would happen, others make it happen.”
-Michael Jordan

Powodzenia!