#### **Fabry Disease and the Heart**

#### Work from Birmingham

Dr Ashwin Roy Research Fellow Institute of Cardiovascular Sciences, University of Birmingham



Conflicts of Interest: None



FIN Meeting 26/4/25



Institute of Cardiovascular Sciences

# **Disclaimers and Disclosures**

- I have received honoraria for talks, teaching and travel bursaries from:
  - Amicus Therapeutics
  - Sanofi
  - Takeda
  - Chiesi
  - Kidneys for Life



# Topics

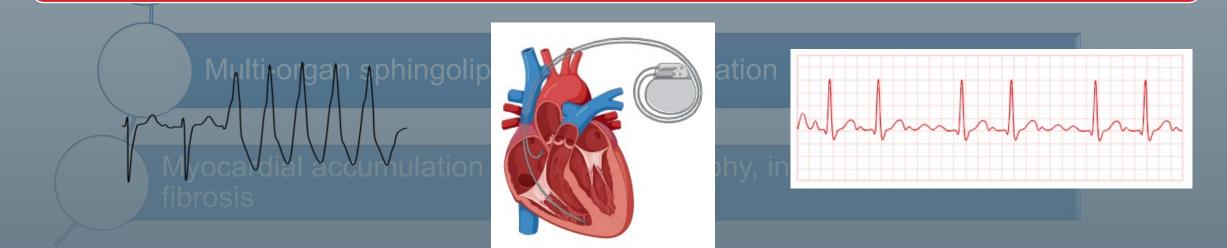
Atrial work	<ul> <li>ECGs in patients</li> <li>Cell model of Fabry Disease</li> </ul>
Exercise capacity	<ul> <li>Peak oxygen capacity on exercise testing</li> </ul>



#### **Fabry Disease**

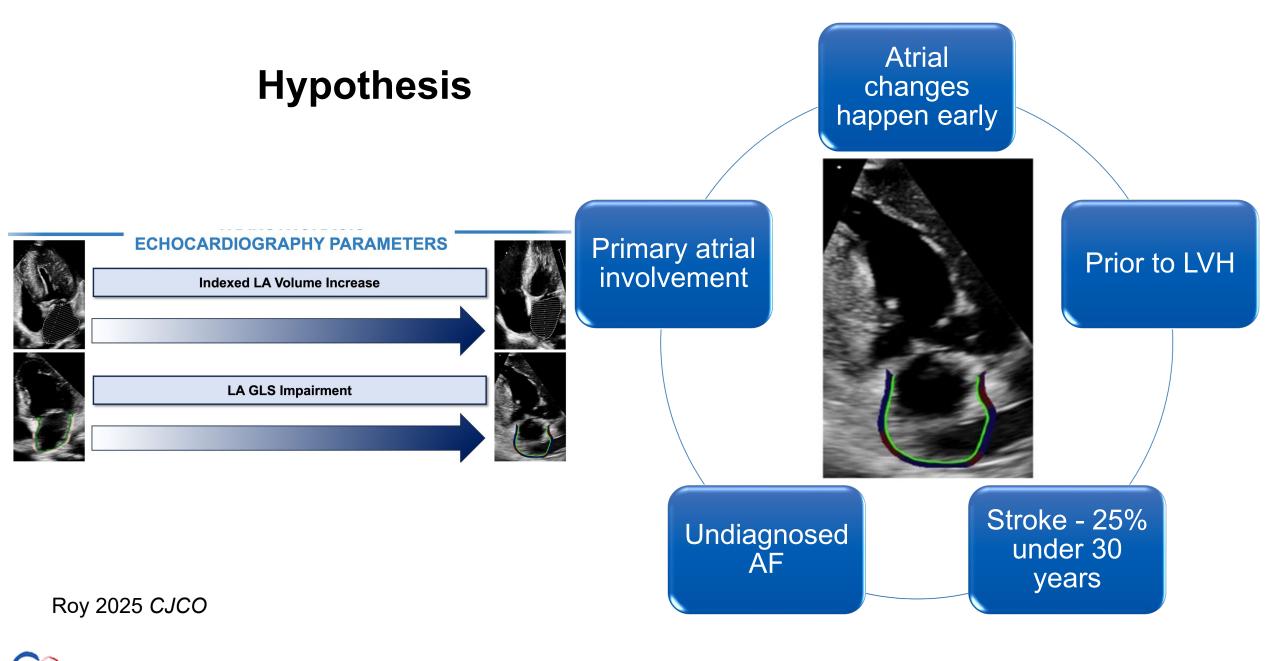
Rare X-linked lysosomal storage disorder

### Prevalence of arrhythmia is very high



Baig 2018 Europace, Vijapurapu 2023 Open Heart Updates on Fabry Disease





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#### Aims

# Identify early atrial ECG changes in patients Fabry Disease

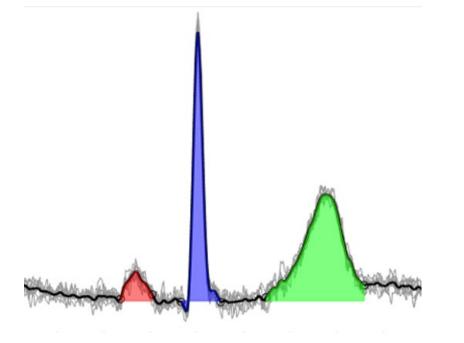
Understand if these reflect changes in Fabry atrial cells





### **Methods**

#### ECGs of adults with Fabry



Stem cells derived atrial cardiomyocytes with a Fabry mutation

Confirm enzyme deficiency and Gb3 accumulation

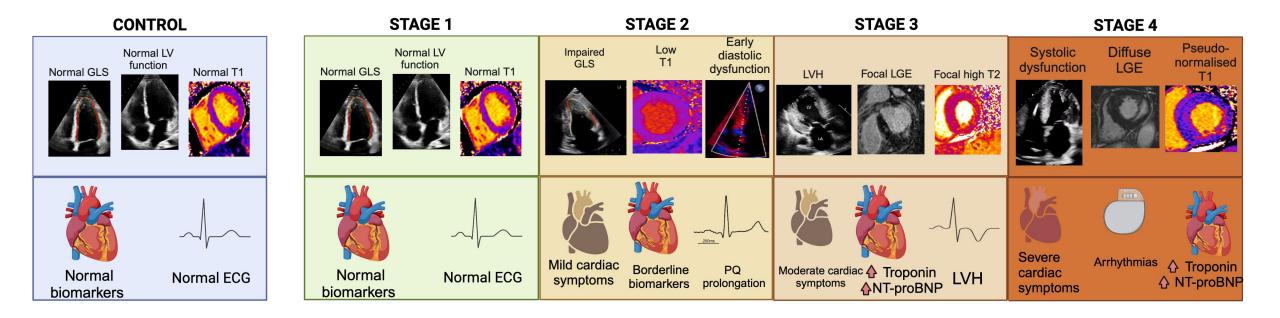
Functional experiments





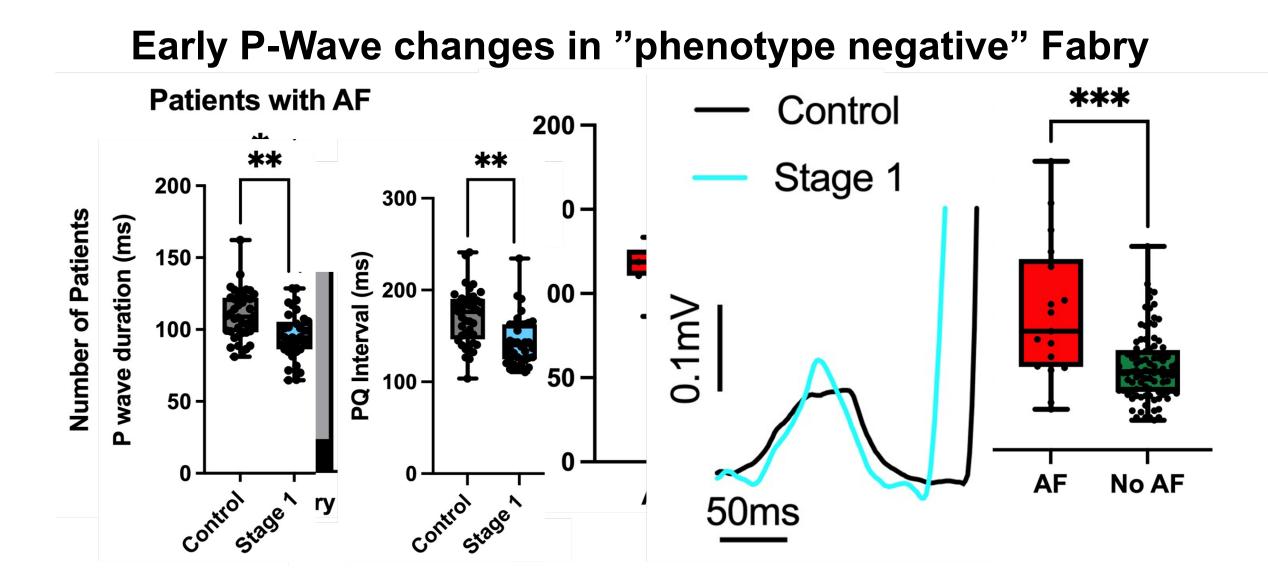


### Staging



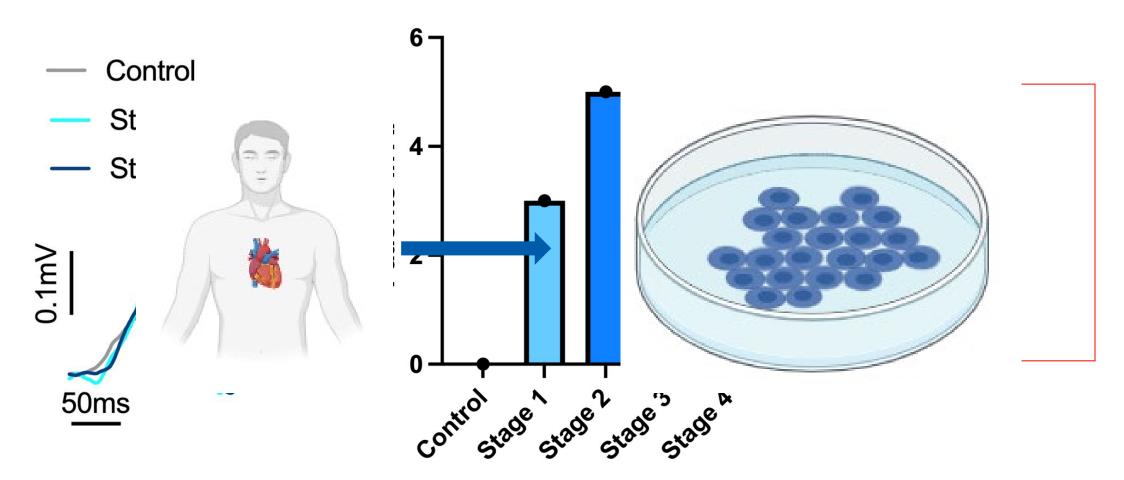








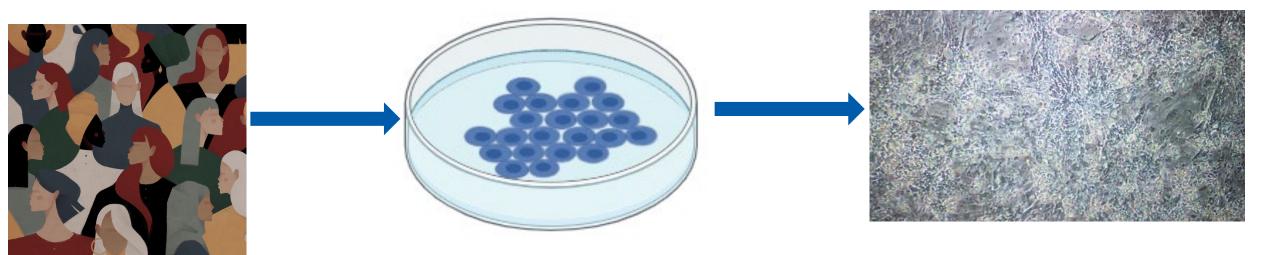
#### Take homes







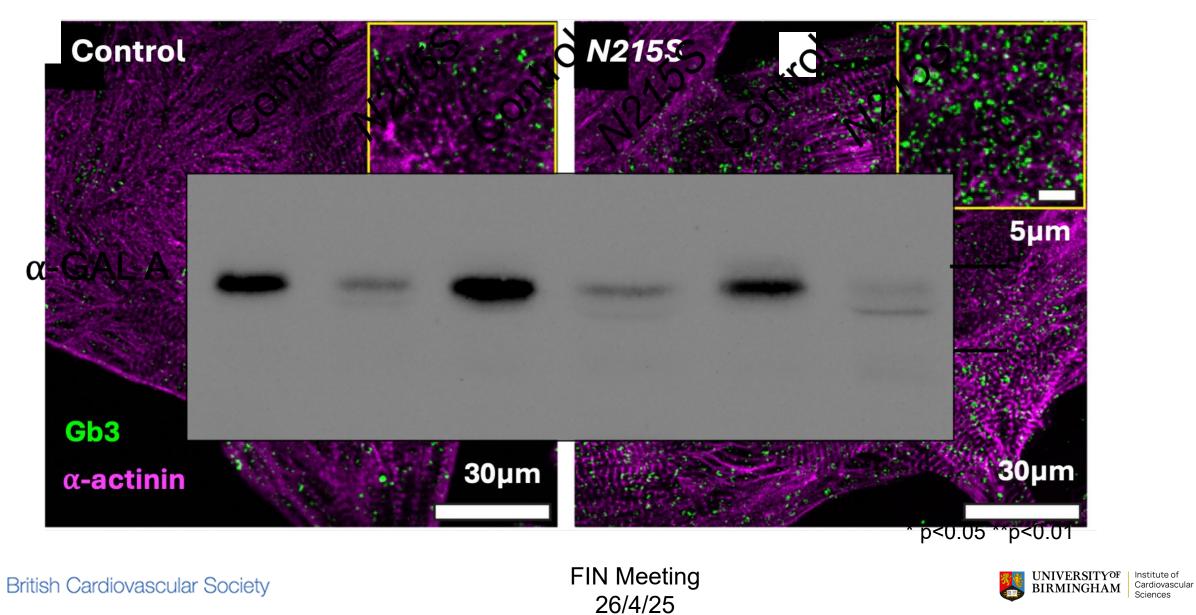
#### **Next steps**



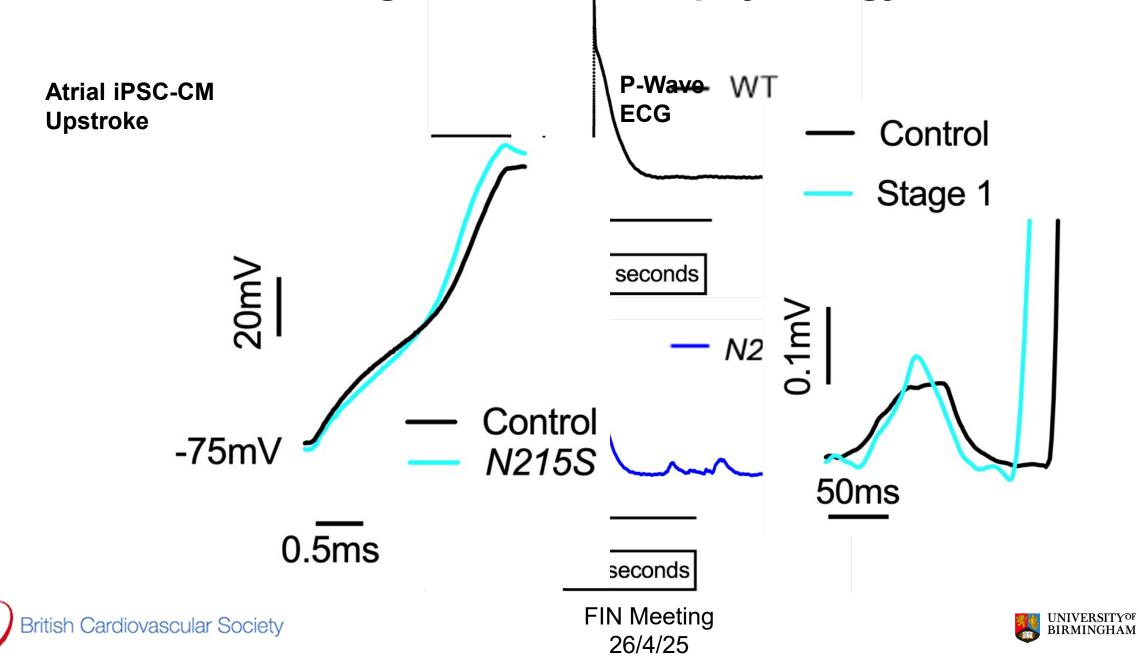




#### Stem cell model

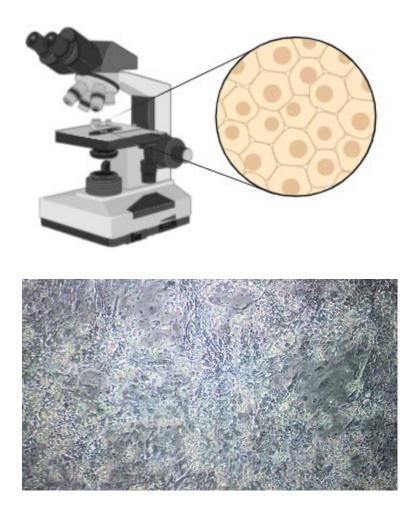


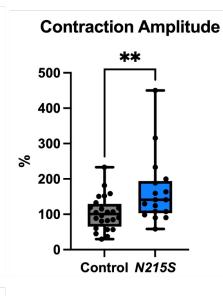
#### **Changes atrial electrophysiology**

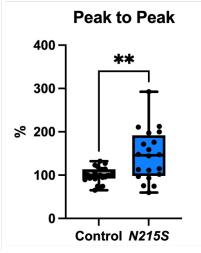


Cardiovascula

#### **Changes in atrial muscle contraction**



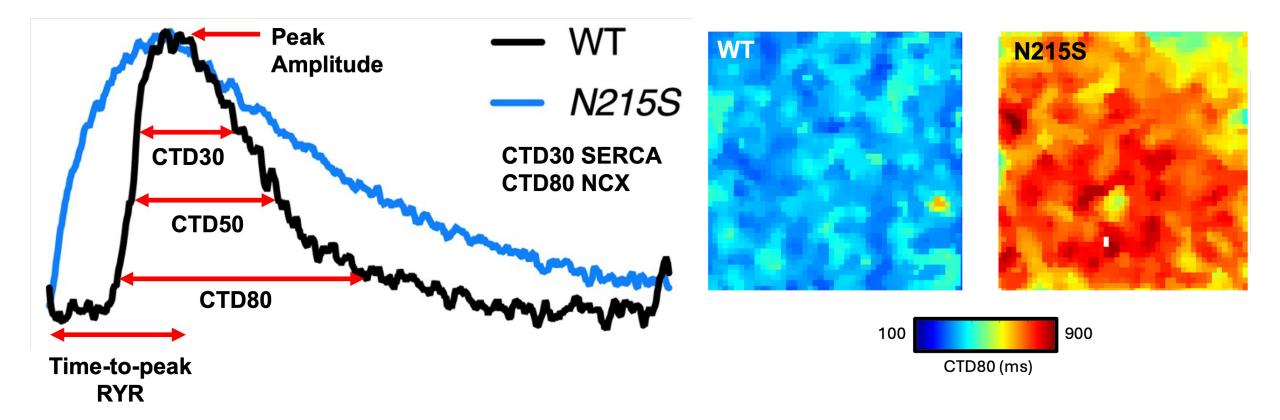




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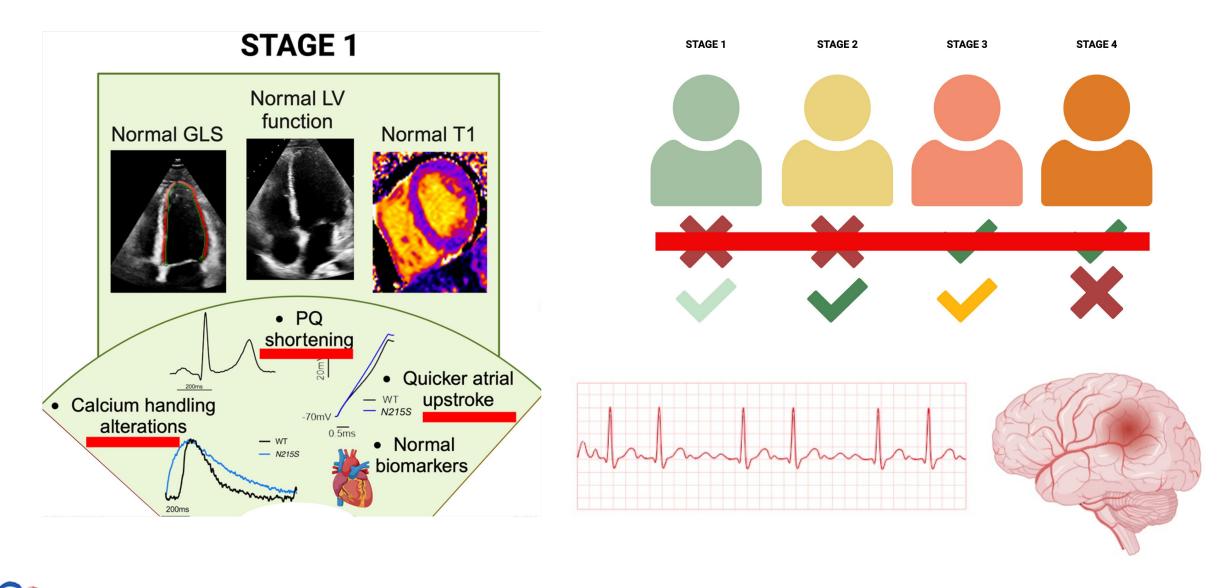


### Changes in movement of calcium





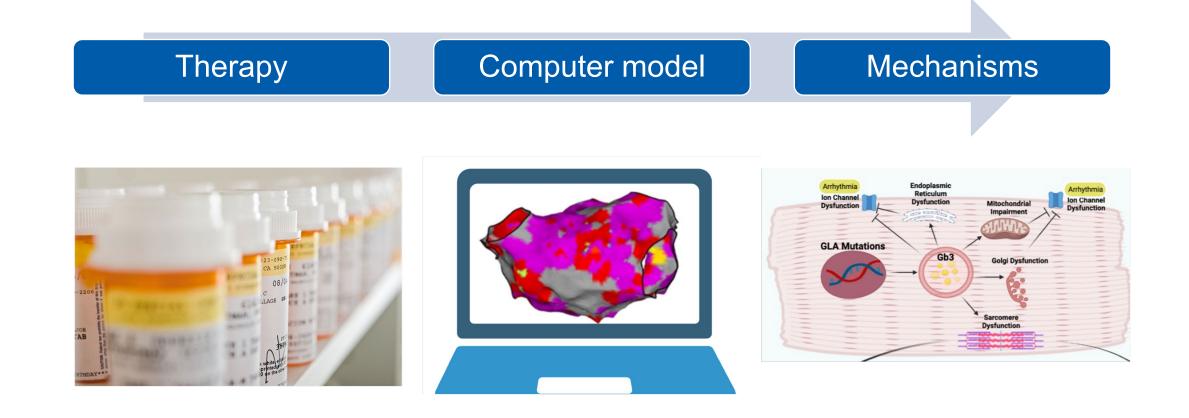
#### Conclusions



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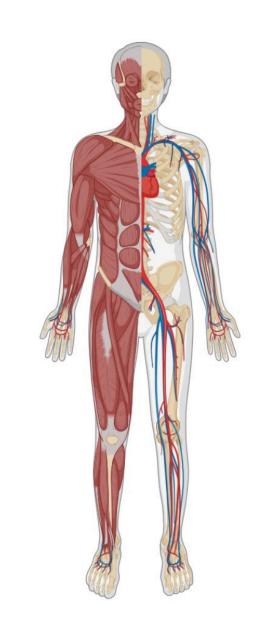


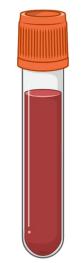
#### **Future Direction**



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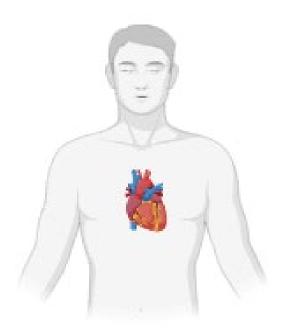




#### **Exercise Intolerance**

Common



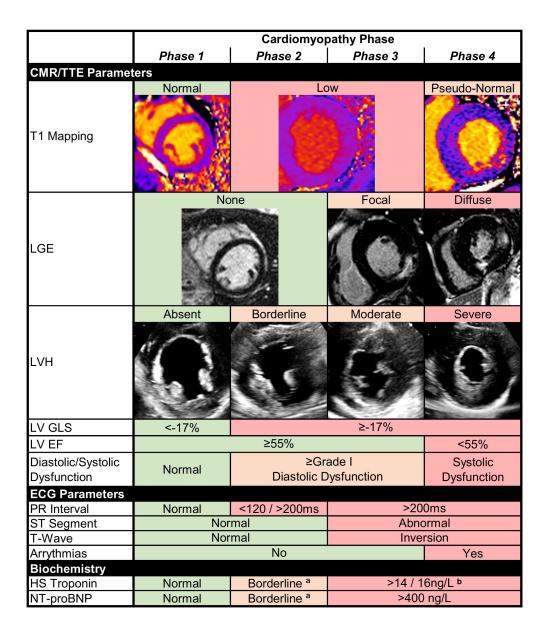




#### Hypothesis

Exercise limitation is evident early in accumulation phase Progressively worsens with later phases Excercise capacity worsens with cardiac disease stage in Fabry

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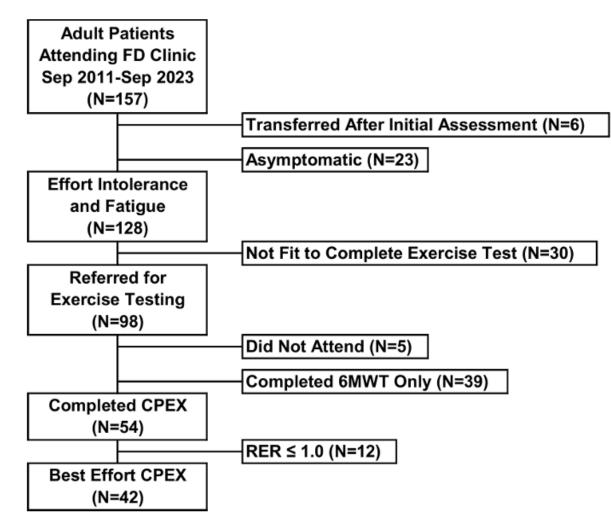
#### **Methods**

Data collection of Fabry cohort undergoing exercise testing

# Cardiopulmonary Exercise test

 $VO_{2peak}$  measured on CPEX

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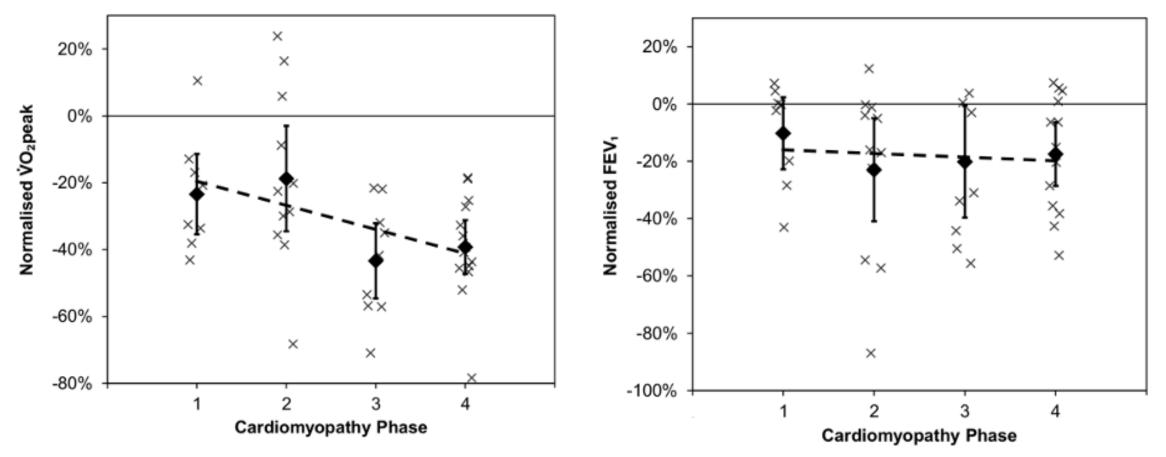


Roy et al 2025 *Heart* 

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#### **B** Normalised VO<sub>2peak</sub>



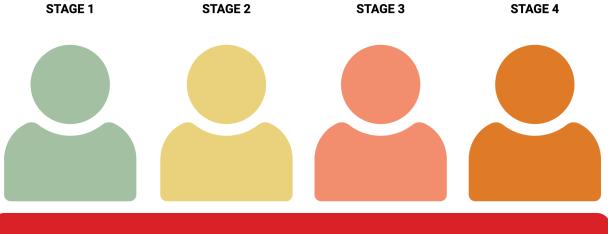


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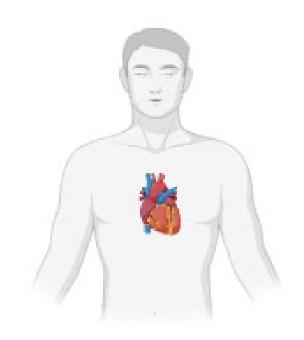
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Roy et al 2025 Heart

#### Conclusions



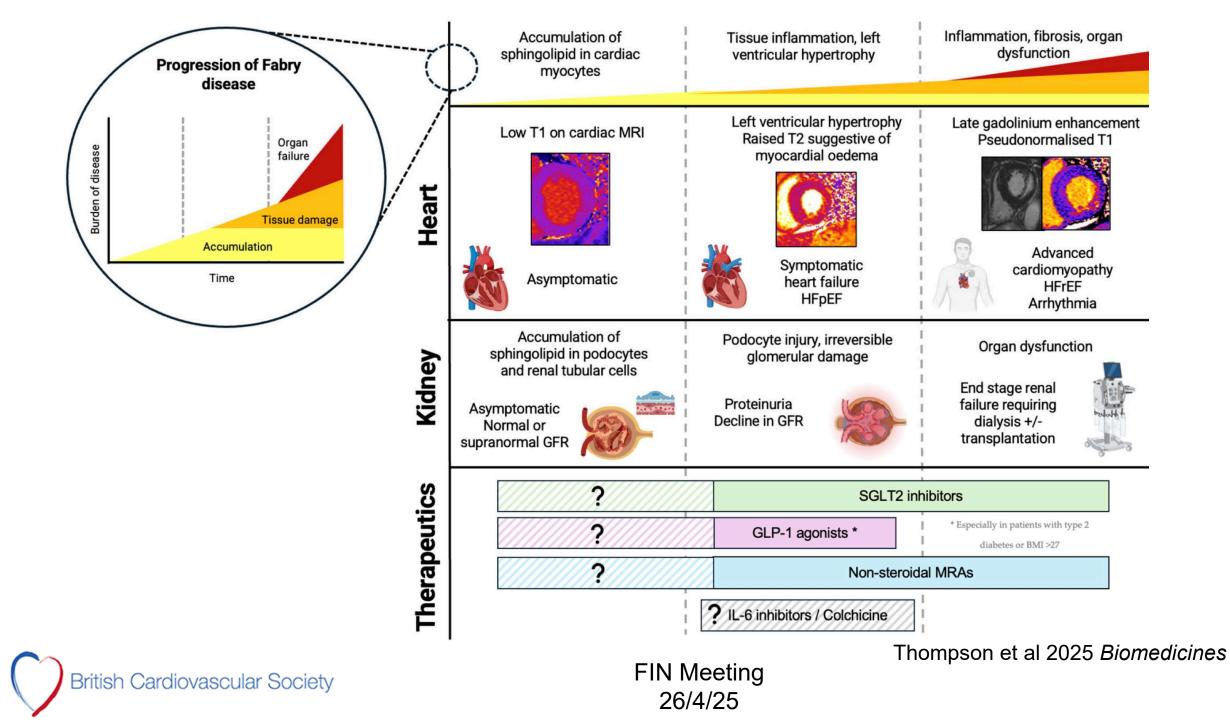
### **Exercise Intolerance**







# Future direction



### Acknowledgements

#### **University of Birmingham**

Katja Gehmlich Chris O'Shea Leena Patel Max Cumberland Hansel Canagarajah Sophie Broadway-Stringer Maya Noureddine Amar Azad Davor Pavlovic Andy Holmes

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Professor Tarekegn Geberhiwot

Professor Jonathan Townend

#### Funders

British Heart Foundation, Metchley Park Fellowship







## Thank you

References

Cardiovascular

- 1. Roy A, Thompson SE, Hodson J, van Vliet J, Condon N, Alvior AM, et al. Changes in peak oxygen consumption in Fabry disease and associations with cardiomyopathy severity. Heart. 2025;111(5):230-8.
- 2. Thompson SE, Roy A, Geberhiwot T, Gehmlich K, Steeds RP. Fabry Disease: Insights into Pathophysiology and Novel Therapeutic Strategies. Biomedicines. 2025;13(3).

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3. Roy A, Thompson SE, Hodson J, Win KZ, Alvior AM et al. Utilization of Transthoracic Echocardiography and Biochemical Markers in Detecting Cardiomyopathy in Fabry Disease, CJC Open 2025,

Conflicts of Interest: None



# Ageing & Fabry disease

Patrício Aguiar Reference Center in inherited metabolic disorders ULS Santa Maria, Lisbon, Portugal

#### I have the following financial relationships to disclose:

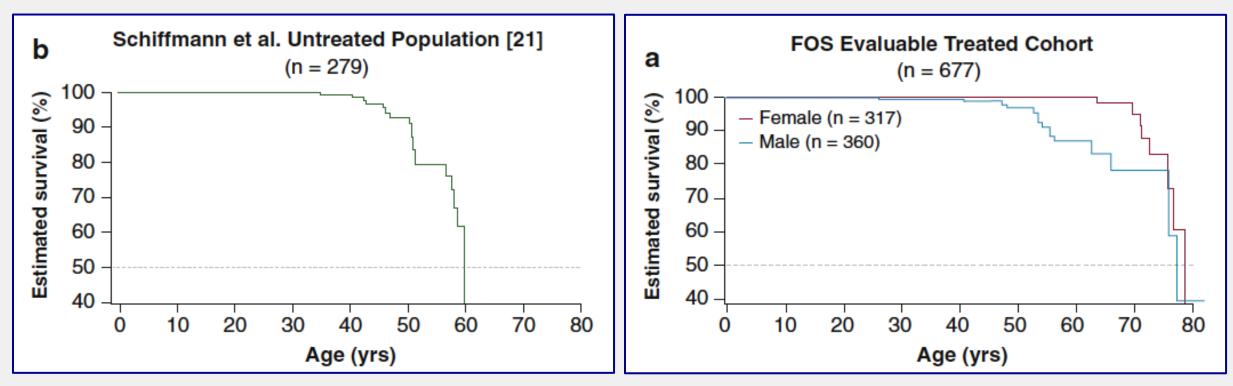
- Grant / research support from Takeda.
- Honoraria from Takeda, Sanofi-Genzyme, Biomarin, Ultragenyx, Alexion, Chiesi and Amicus.

## Fabry disease is changing: lifespan



## Fabry disease is changing: lifespan

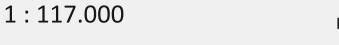
Improved health care and overall survival



Beck M, et al. Molecular Genetics and Metabolism Reports 3 (2015) 21–27

# Fabry disease is changing: epidemiology and phenotype

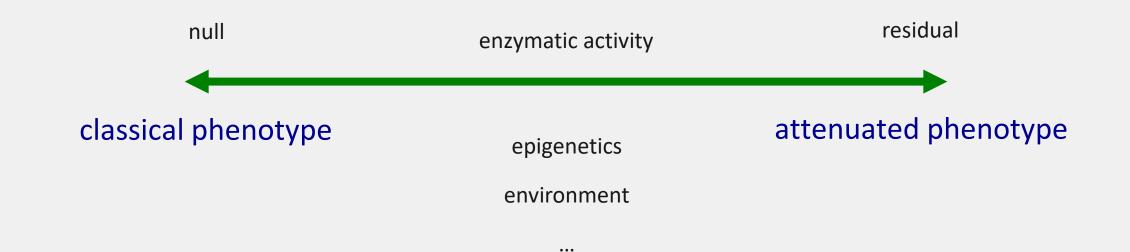
Methods	Source	Ascertainment period	Total number of cases	No. per 100000	Country and reference
Birth prevalence (number of postnatal plus prenatal enzymatic diagnoses divided by number of births)	Two centres holding all enzymatic analyses in Australia	1980-1996	36	0.85	Australia [34]
Birth prevalence (number of cases born within a certain period divided by total number of live births in the same period)	All the laboratories making pre- and postnatal diagnoses of LSDs in The Netherlands	1970-1996	27	0.21	The Netherlands [33]
Prevalence of obligate carifers	By family history, from the UK AFD register	1980-1995	60	0.29	UK (females only) [26]
Prevalence	Records from regional genetic units and enzyme reference laboratories; records from individual doctors	1980-1995	98	0.27	UK (males only) [425]
Birth prevalence (number of cases born within a certain time period divided by total number of live births in the same period)	Two main reference centres for diagnosis of sphingolipidoses by enzyme analysis of patients under 5 years suspected of LSD	1997-2002	1	0.015	Turkey [426
Birth prevalence (number of postnatal plus prenatal enzymatic diagnoses divided by number of live births) in north Portugal	One centre providing all pre- and postnatal diagnoses of LSDs in Portugal	1982-2001	1	0.12	North Portugal [427]
Neonatal screening	Northern Italy	2004-2006	12	30	Italy [35]
Neonatal screening	Taiwan	2006-2008	73	80	Taiwan [36



rare disorder (?)

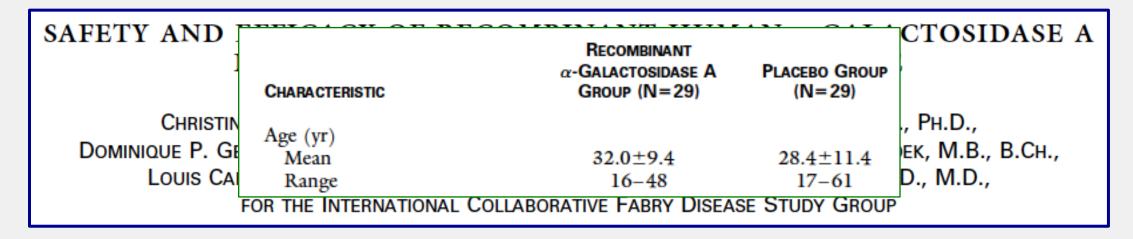
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## Fabry disease is changing: epidemiology and phenotype



Founder effect of Fabry disease due to p.F113L mutation: Clinical profile of a late-onset phenotype Molecular Genetics and Metabolism 129 (2020) 150–160 Olga Azevedo<sup>a,b,c,\*</sup>, Andreas Gal<sup>d</sup>, Rui Faria<sup>e</sup>, Paulo Gaspar<sup>f</sup>, Gabriel Miltenberger-Miltenyi<sup>b,c,g</sup>, Miguel F. Gago<sup>b,c,h</sup>, Fátima Dias<sup>i</sup>, Alice Martins<sup>i</sup>, Jorge Rodrigues<sup>j</sup>, Pedro Reimão<sup>k</sup>, Olga Pereira<sup>l</sup>, Sónia Simões<sup>m</sup>, Emilia Lopes<sup>n</sup>, Maria José Guimarães<sup>o</sup>, Nuno Sousa<sup>b,c</sup>, Damião Cunha<sup>b,c</sup>

## Fabry disease is changing: clinical trials



# Oral pharmacological chaperone migalastat

• • •	-	-
(	Migalastat n=36	ERT n=21
Age (years)±SEM (min, max)	50.5±2.3 (18, 70)	46.3±3.3 (18, 72)
randomised phase III	ATTRACT Stu Hughes DA, et al. J Med C	<b>dV</b> Genet 2017; <b>54</b> :288–296





# Fabry disease patients are getting older



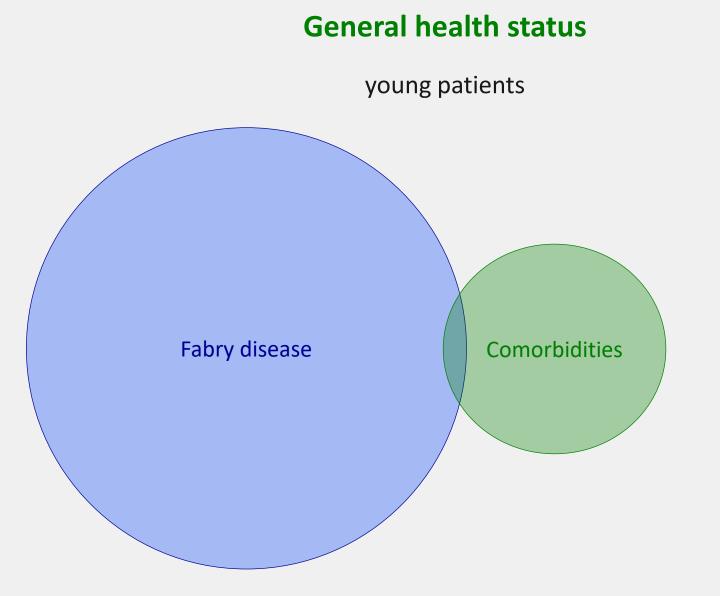
# Age is the most important prognostic factor in Fabry disease



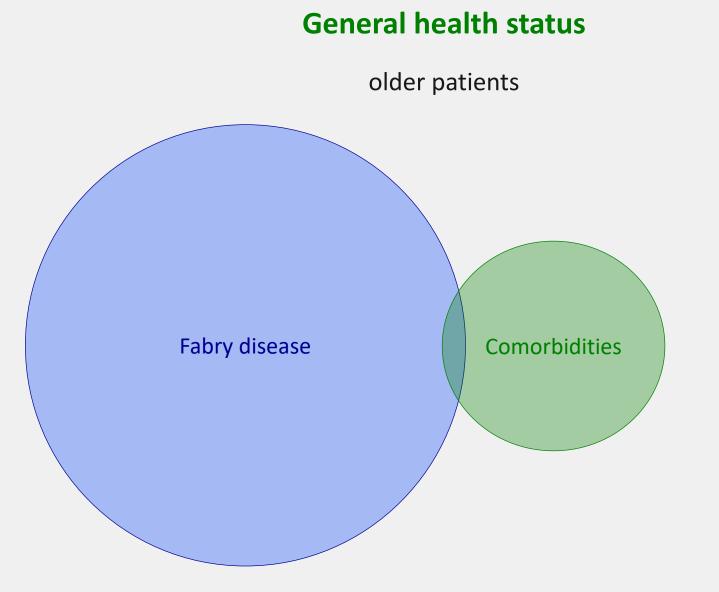
### **Ageing & Fabry disease: challenges**

- Comorbidities and phenotype modulation
- Health-related QoL in older people with Fabry disease
- Natural history of attenuated phenotypes and how to evaluate QoL
- Multidisciplinary team changes
- Disease-specific treatment objectives and ageing
- Lifespan and causes of death in Fabry disease
- Research needs

### **Challenges: comorbidities**



### **Challenges: comorbidities**



### **Challenges: comorbidities and phenotype modulation**

Pain

age





### **Challenges: comorbidities and phenotype modulation**

#### **Stroke risk**

Estimation of Stroke Risk in Patients with Fabry Disease Using a Machine Learning Model

Staci Kallish, DO,<sup>1</sup> Giorgio P Biondetti,<sup>2</sup> John L Jefferies, MD, MPH, Patrício Aguiar, MD, PhD, Matthew W Nelson, PharmD, Joseph D Giuliano, Joseph W Zabinski, PhD, Costas Boussios, PhD, Gary Curhan, MD, ScD, Jigar N Bandaria, PhD, Richard E Gliklich, MD, David Warnock, MD

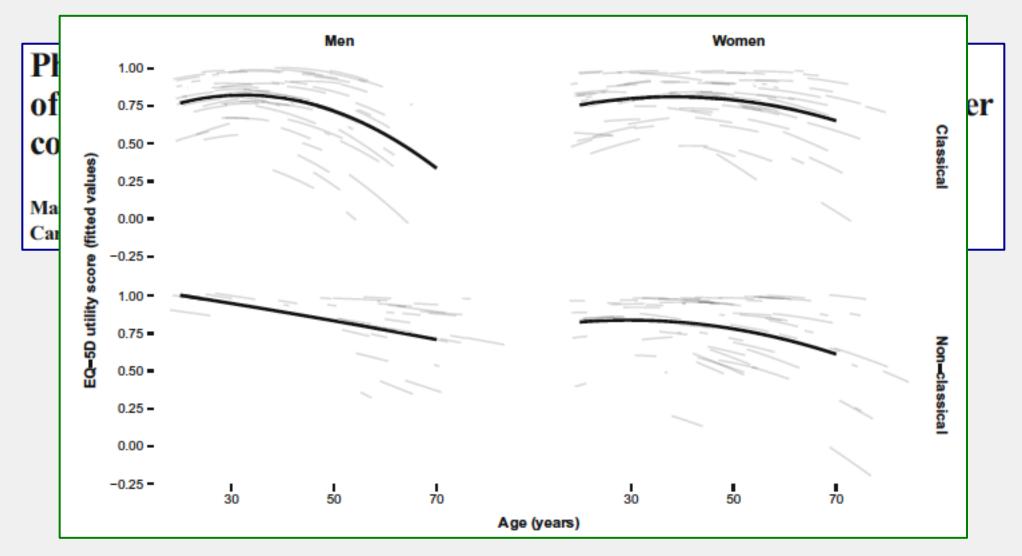
Key characteristics associated with elevated risk in FD patients shared roughly 70% similarity with those present in non-FD patients

### **Challenges:** comorbidities and phenotype modulation

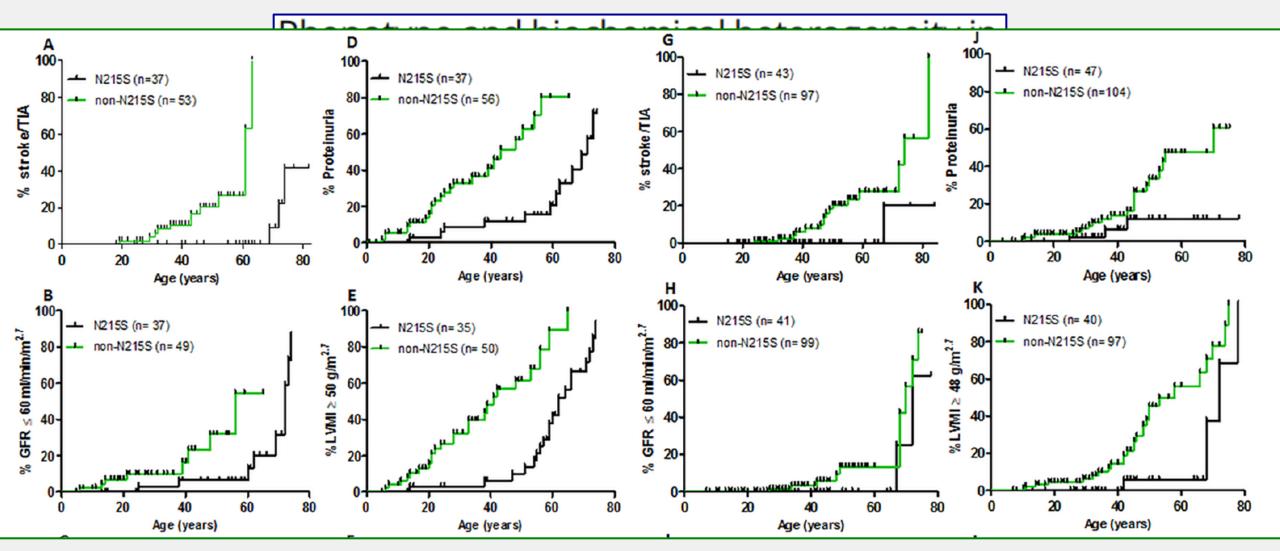
#### **Risk of dementia**

Authors	N	Age (years)	Sex	Tests performed	Type of analysis	Stroke (n)	Impaired cognitive domains	Limitations
Low et al. (2007)	21 P, 46 C	Mean 40.2 Range 20–62	2 F 19 M	MMSE, NUCOG	Group comparisons healthy vs. patient	9/14, MRI in 14/ 21 P	Language	Too broad and too few <i>N</i> -tests. No measure of premorbid or present intellectual functioning. Depression not examined
Segal et al. (2010)	16P	Mean 29 Range N/A	9 F 7 M	Comprehensive N-battery	N-test results were compared to age- based norms	1	Psychomotor speed, attention and executive functions	No measure of premorbid or present intellectual functioning. Children and adults grouped in analysis
Schermuly et al. (2011)	25 P, 20 C	Mean 36.5 Range 21–56	15 F 10 M	RAVLT, WMS-R, TAP, TMT, Part A + B, and WCST	Group comparisons healthy vs. patient	5	Attention and executive functioning (became non- significant after controlling for depression severity)	No measure of premorbid intellectual functioning
Elstein et al. (2012)	6P	Mean 41.3 Range 25–63	4 F 2 M	Mindstream's computerised cognitive battery for mild impairment	The results were compared to Norms from Mindstream's program	2	Psychomotor speed	The results are not controlled for depressi
Sigmundsdottir et al. (2014)	17 P, 15 C	Mean 46.6 Range 25–60	5 F 12 M	Comprehensive N-battery	Group comparisons healthy vs. patient	4	Psychomotor speed and executive functions (only males)	
Wadley et al. (2015)	54, 216 C	Mean 55.7 Range 46–72	37 F 17 M	NINDS-CSN, CERAD	Group comparisons healthy vs. patient	6	No significant difference between patient and control group. No significant gender difference	The results controlled for depressi opsychological assessm made by telephone. Disease y not stated
Lelieveld et al. (2015)	25 P	Mean 37.9 Range N/A	15 F 10 M	MMSE, AVLT, WMS-R, TMT part A + B	Comparisons between baseline and 8-year follow-up	N/A	N/A	No measurer Sprevalence of cognitive deficits and rol group
Current study	41 P, 80 C	Mean 47.2 Range 20–75	29 F 12 M	Comprehensive N-battery	Observed scores compared to regression based reference data	7	Psychomotor speed, attention and executive functions	Fixed categorisation of tests in cognitive domains

### **Challenges:** heath-related QoL



### **Challenges:** attenuated phenotypes



19/06/2025 17

- Is the phenotype related to FD itself or ageing / comorbidities
- How can we measure health-related QoL: heart failure QoL scales (?)
- What is the lifespan of attenuated phenotypes (?)

### **Challenges: multidisciplinary team**

#### young patients

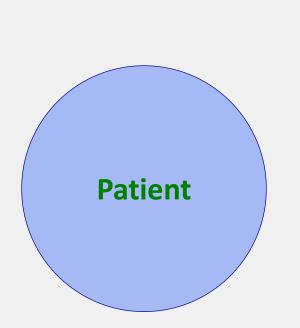
- Primary care / GP
- Diagnostic laboratory
- Geneticist
- Psychologist
- Social worker
- Reproductive medicine
- Specialist nurse
- Patient advocacy
- Rehabilitation
- Palliative / pain care



- Coordinator Paediatrician / Internist
- Cardiologist
- Nephrologist
- Neurologist
- Ophthalmologist
- ENT
- Dermatologist
- Psychiatrist
- Gastroenterologist
- Rheumatologist

### **Challenges:** multidisciplinary team

- Primary care / GP
- Diagnostic laboratory
- Geneticist
- Psychologist
- Social worker
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- Specialist nurse
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- Rehabilitation
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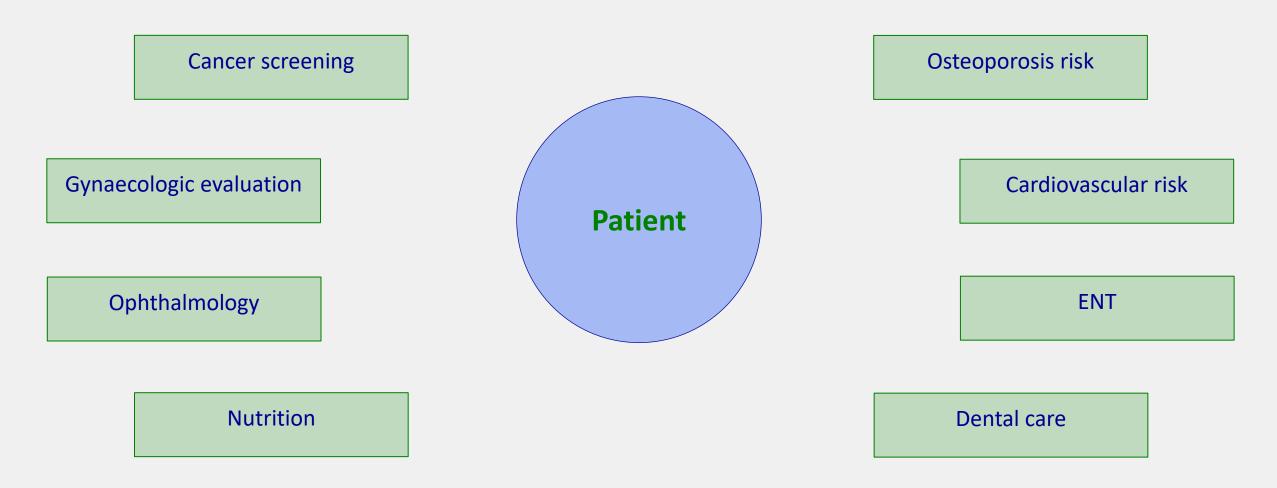


old patients

- Coordinator Paediatrician / Internist
- Cardiologist
- Nephrologist
- Neurologist
- Ophthalmologist
- ENT
- Dermatologist
- Psychiatrist
- Gastroenterologist
- Rheumatologist

### **Challenges: multidisciplinary team**





### **Challenges:** disease specific treatment

#### **Clinical trials**

Treatment	Clinical trial	Population	Mean age (range)	Age inclusion criteria
Agalsidase-α	Schiffmann R <sup>1</sup>	26 males	34.0 ()	≥ 18 уо
Agalsidase-β	Eng C <sup>2</sup>	58 patients (2F)	32.0 (16 – 48)	≥ 16 yo
Migalastat	FACETS <sup>3</sup>	24M, 43F	40.0 (16 – 68)	16 — 74 уо
	ATTRACT <sup>4</sup>	25M, 32F	48.9 (18 – 72)	16 — 74 уо

### No evidence in elderly

- 1 Schiffmann R et al. JAMA (2001); 285: 2743-2749.
- 2 Eng C et al. N Engl J Med (2001); 345: 9-16.
- 3 Germain DP et al. N Engl J Med (2016); 375: 545-55.
- 4 Hughes DA et al. J Med Genet (2017); 54(4): 288-296.

### **Challenges:** disease specific treatment

#### **Clinical trials**

Treatment	Clinical trial	Adjunctive treatments	an age (range)	Age inclusion criteria
Agalsidase-α	Schiffmann F	heart failure	34.0 ()	≥ 18 yo
Agalsidase-β	Eng C <sup>2</sup>		2.0 (16 – 48)	≥ 16 yo
Migalastat	FACETS <sup>3</sup>	antiarrhythmic	0.0 (16 – 68)	16 – 74 yo
Maastat	ATTRACT <sup>4</sup>	cardiac devices	8.9 (18 – 72)	16 — 74 уо
		antiproteinuric		

pain killers

antiplatelets / anticoagulants

1 - Schiffmann R et al. JAMA (2	2001); 285: 2743-2749.
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- 2 Eng C et al. N Engl J Med (2001); 345: 9-16.
- 3 Germain DP et al. N Engl J Med (2016); 375: 545-55.
- 4 Hughes DA et al. J Med Genet (2017); 54(4): 288-296.

### **Challenges:** causes of death in Fabry disease

#### up to 2001

	Number of deaths in male relatives						er of dea	ale relatives		Overall number of deaths					
	Age at	death (ye	ars)			Age a	t death (y	ears)			Age at	t death (y	ears)		
Cause of death	0–20	21–50	>50	Unknown	Total	0–20	21–50	>50	Unknown	Total	0–20	21–50	>50	Unknown	Total
Cardiac	0	22	8	1	31	0	1	11	0	12	0	23	19	1	43
Renal	0	29	14	7	50	0	5	2	0	7	0	34	16	7	57
Cerebrovascular	0	5	5	2	12	0	6	8	2	16	0	11	13	4	28
Respiratory	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1
Malignancy	0	2	1	0	3	0	4	5	1	10	0	6	6	1	13
Infection	0	3	0	2	5	0	0	1	0	1	0	3	1	2	6
Multisystemic	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1
Other	0	7	3	6	16	0	4	5	7	16	0	11	8	13	32
Total	0	68	32	18	118	0	20	33	10	63	0	88	65	28	181

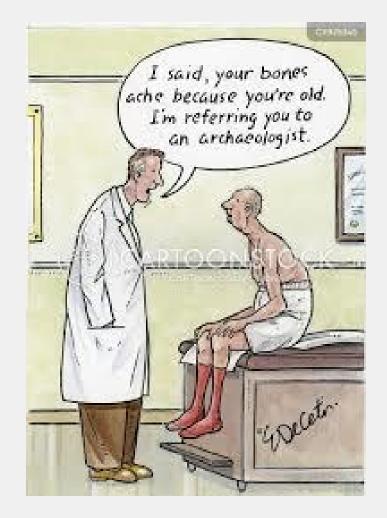
### **Challenges:** causes of death in Fabry disease

#### 2001 – 2007

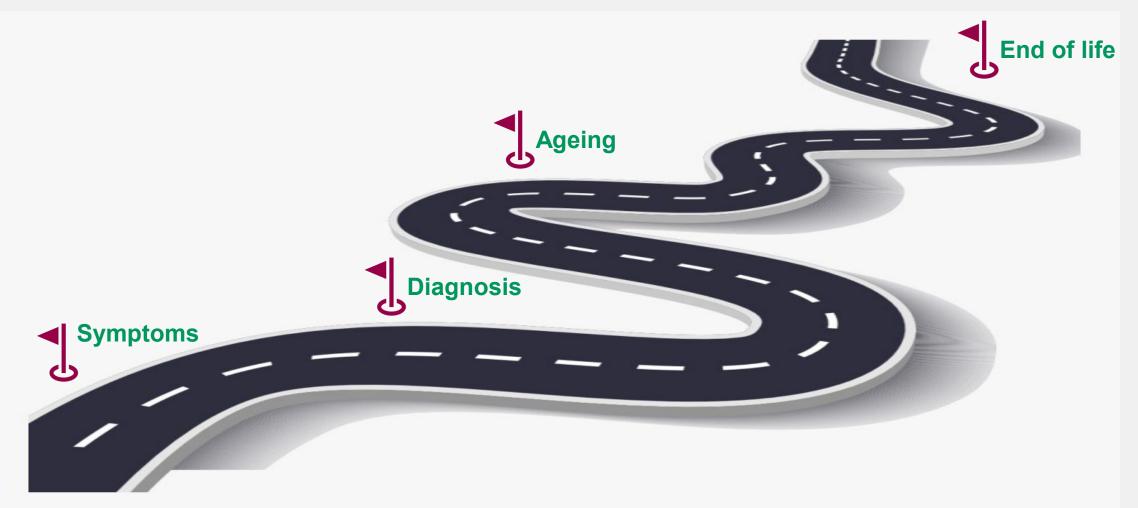
	Receiv	ed ERT at	some time	Never	received	ERT	<b>Overal</b>		
Cause of death	М	F	Total	М	F	Total	М	F	Total
Cardiac	10	2	12	2	2	4	12	4	16
Renal	3	0	3	0	0	0	3	0	3
Cerebrovascular	3	0	3	1	0	1	4	0	4
Respiratory	2	0	2	1	0	1	3	0	3
Malignancy	1	1	2	1	0	1	2	1	3
Infection	5	0	5	0	0	0	5	0	5
Multisystemic	2	2	4	2	0	2	4	2	6
Other	2	0	2	0	0	0	2	0	2
Total	28	5	33	7	2	9	35	7	42

#### **Cardiac supportive care is essential**

# Research is an urgent need in old Fabry disease patients



### (Not only) the end of a patient journey...



### Take-home messages

- Due to different reasons Fabry disease patients are getting older
- The comorbidities may influence Fabry disease phenotype and decrease health-related QoL
- In patients with attenuated phenotypes, the influence of age in Fabry disease phenotype may be even of greater magnitude
- The evidence supporting disease-specific treatment in elderly patients with Fabry disease is scarce
- A holistic multidisciplinary team and adjunctive therapies are paramount in older patients with Fabry disease
- Research is an urgent need in this population

### Thank you



#### Põe quanto És no Mínimo que Fazes

"To be great, be whole: nothing of yours exaggerate or exclude.

Be entire in everything. Give all of you in the least you do.

Hence on every lake the whole moon shines as it lives high."

Ricardo Reis, in "Odes"

### Turning Passion into Action: Sustainable futures for Patient Organizations Annual FIN Expert Meeting

# HUMANIZED SOLUTIONS

Vanessa Ferreira, PhD MBA

Head of Patient and Public Involvement and Engagement



#### Where are you on the funding journey?" (Show of hands)

#### Ask participants to raise their hands to indicate:



Green: We've successfully applied for multiple funding callsYellow: We've tried applying but still learning.Red: We're just starting and haven't applied yet.



#### **Diverse funding opportunities**

- Public grants national & regional-, EU funding programs,
- Pharma & biotech,
- Private foundations and charities e.g. Wellcome Trust, Bill & Melinda Gates),
- Corporate Social responsibility (CSR) programs,
- Crowdfunding & community fundraising,
- Membership fees & subscriptions,
- Donations & legacy giving,
- Events & campaigns,
- Service-based income e.g. consultancy,
- EU & Global networks (Global Genes)







#### **Quick interactive game**

#### How many:

- "Has applied for EU funding"
- "Has collaborated with pharma"
- "Knows what a Work Package is"
- "Has been rejected for funding (and learned from it!)"
- "Knows what Lump Sum is"
- "Recently started the first steps related to EU funding and/or other"





#### Share your best tip

#### Write in a sticky note

- "What's one thing you wish you knew before applying for funding?"
- "What's your best advice for building partnerships?"









#### The Nobel Prize in Physiology or Medicine 1981

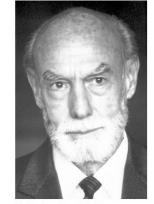
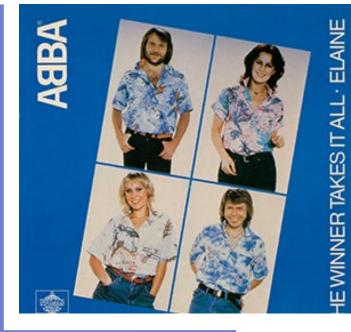


Photo from the Nobel Foundation archive. Roger W. Sperry Photo from the Nobel Foundation archive.



Photo from the Nobel Foundation archive. Torsten N. Wiesel



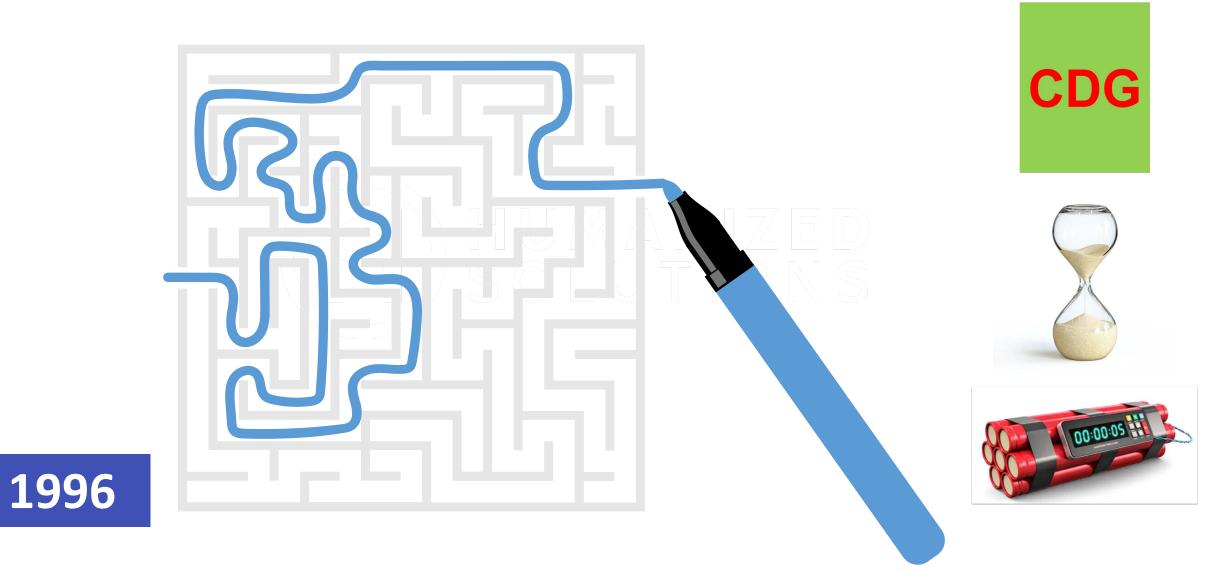


### 1981











## CLINICAL TRIAL

111-8

WALLS

LARKIN OF HARM

1000 POUL

Contra 19

Billy G

JOHN CREEN

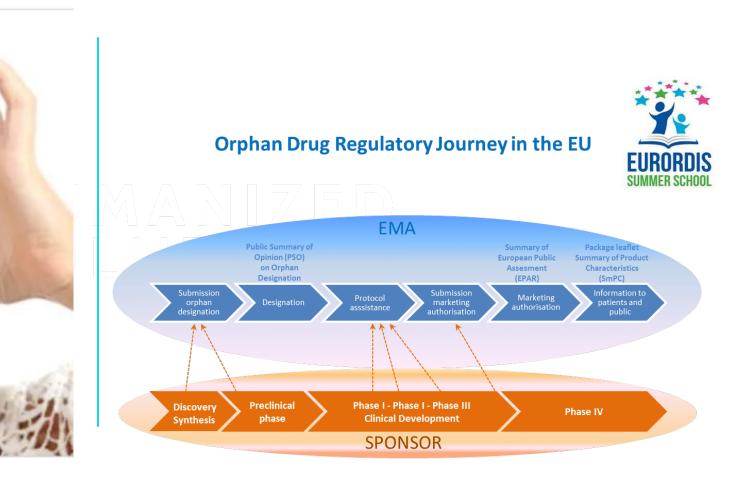
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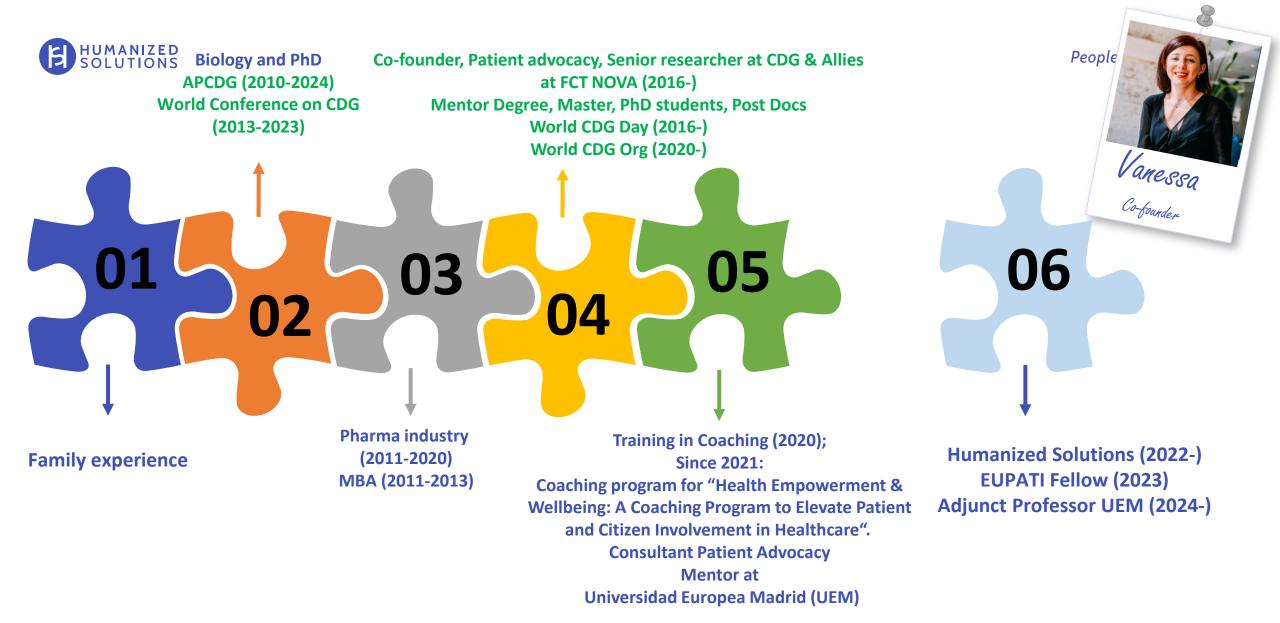
OBEN





### 2010

Private and confidential. For internal use only.



Personal journey: From passion and goodwill to understanding the need for strategy and financial sustainability.



The reality of leading an association isn't just  $\heartsuit$  —it's also about structure and resources.



People Centric Solutions

#### What I would tell the Vanessa of 2010



Passion & Goodwill starts the journey, but strategy and sustainability keep it going.

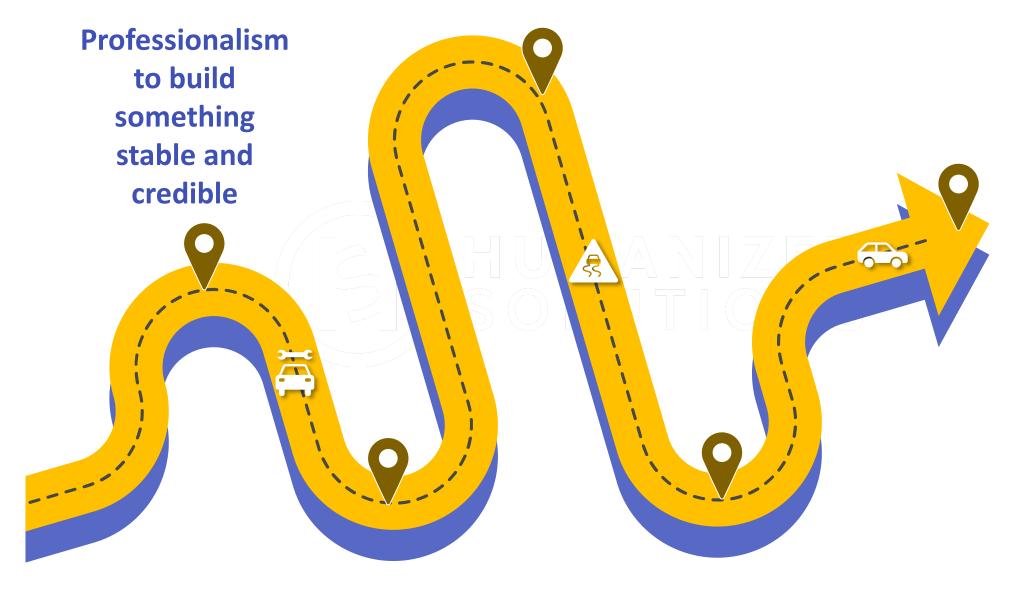


How to transform the **CDG patient group** into a recognized, professional entity moving beyond the perception of being just a group connected by shared experiences?



Passion & Goodwill starts the journey, but strategy and sustainability keep it going. Professionalism is one key component.







#### From passion to mission: The power of professionalization to become sustainable



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Passion and goodwill open doors, but professionalism turns ideas into action, secures your place at the table, and leads to real achievements.



### The importance of being seen as professional to secure funding and partnerships.

Credibility	💛 Trust for funding	<b>F</b> Sustainable growth	Stronger partnerships
Be seen as reliable, organized, and serious by funders, researchers, and policymakers.	Funders and sponsors need to trust you have systems in place — governance, finance, clear goals.	Professional structure prevents burnout and keeps your mission alive long-term.	Professionalism opens doors to pharma, academia, and public institutions.



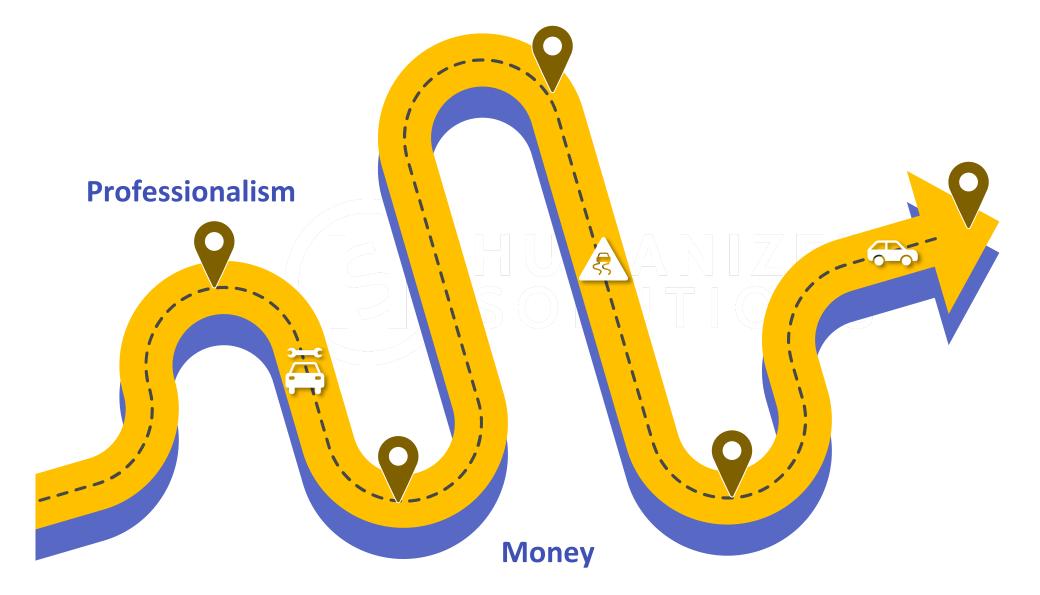
People Centric Solutions

#### What I would tell the Vanessa of 2010



Professionalism gets you a seat at the table, and funding that sustains it. Money, Money, Money: Funding is essential to turn purpose into impact







## Money, Money: Funding is essential to turn purpose into impact



**W** Heart — Enhanced Patient Care & Human Impact

→ Ultimately, funding helps fulfill the mission: improving lives. → Focus your mission to align with funding goals.



## Step by Step: How to focus your mission to align with funding goals

# Understand funders' priorities

- Research what your target funders (EU programs, foundations, industry, etc.) are looking to support.
- Look for specific keywords
- Example: If a funder focuses on digital solutions in healthcare, highlight how your project contributes to this, even if your broader mission is patient support.



#### Define clear, focused objectives

- Break down your mission into specific, fundable goals.
- Avoid being too broad. Instead of saying "We want to improve patients' lives", say:
   "We aim to develop educational tools for rare disease patients to improve diagnosis pathways."
- Focus on projects that **match** 
  - available funding themes.



# Translate passion into measurable impact

- Funders need **evidence** of results.
- Align your mission by thinking:

*"How does our work create measurable outcomes that funders care about?"* 

 Example: Awareness campaigns → Show how they lead to earlier diagnoses or patient empowerment.



## Step by Step: How to focus your mission to align with funding goals

# Read the guides & Use the language of funders

- Adapt how you **present your mission** using terms funders recognize.
- Words like "capacity building", "innovation", "public health impact", "costeffectiveness", "stakeholder engagement" resonate more than emotional appeals alone.



## Stay true, but flexible

- You don't need to change your mission — just frame it strategically.
  - Focus on the parts of your mission that overlap with funders' goals.
  - Example: If your mission is broad patient advocacy, but the funding is for research collaboration, emphasize how you facilitate patient involvement in research.





# **Example:**

### Original mission:

"Support families affected by rare diseases through advocacy, education, and community building."

## Aligned for funding:

"We empower rare disease patients and families **by developing** innovative educational tools **and fostering** patient involvement in healthcare research — contributing to better health outcomes and system innovation."

Aligning your mission with funding goals is about speaking the funder's language, focusing on impact-driven objectives, and showing how your passion delivers results in areas they care about.



#### 1. NGO Management Certificate – Harvard Kennedy School (Free Modules Available)

Focus: Leadership, fundraising, governance, strategic management for NGOs.

While full programs are paid, Harvard offers free online modules via edX and other platforms.

Harvard edX Courses

HUMANIZED

#### 2. Nonprofit Ready – Free Courses for NGOs

Over 500 free courses on topics like: Fundraising & Grant Writing, Financial Management, Governance & Board Development, Project Management.

Created specifically for nonprofits and NGOs.

o Nonprofit Ready Courses



#### **3.** Coursera – Nonprofit Management Courses

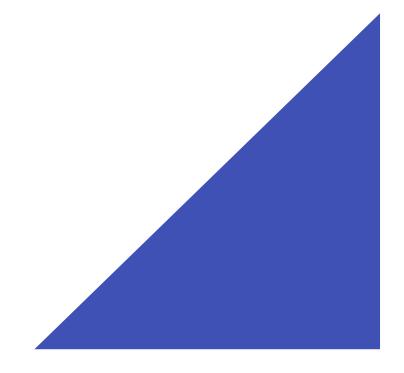
Universities like Duke, Stanford, and UPenn offer courses such as:

- "Nonprofit Management Essentials"
- "Fundraising and Development"
- "Financial Management for NGOs"

Many courses are free to audit.

HUMANIZED SOLUTIONS

• Coursera Nonprofit Courses





#### 4. The Open University – Free NGO Courses

Topics include:

- "Introducing the Voluntary Sector"
- "Working in the Voluntary Sector"
- "Leadership and governance basics"
- o OpenLearn Voluntary Sector Courses

#### 5. NGO Academy (by ERSTE Foundation & WU Vienna)

Free capacity-building programs for NGOs, including patient organizations, focused on leadership, impact measurement, strategy, and financial sustainability.

o NGO Academy



#### 6. The Center for Nonprofit Management (CNM) – Free Webinars

Regular free sessions on nonprofit excellence:

- Grant writing
- Strategic partnerships
- Board governance
- o <u>CNM Events</u>

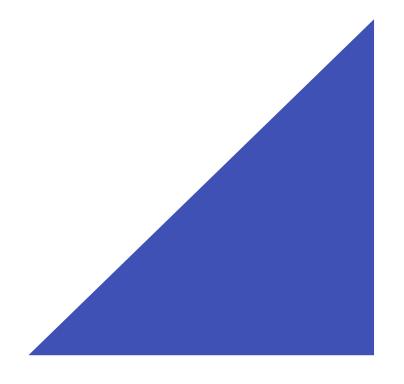
#### 7. GlobalGiving – Accelerator for NGOs

A free virtual training program to help NGOs build skills in:

- Crowdfunding
- Storytelling
- Donor engagement

Upon completion, NGOs get permanent membership on GlobalGiving's platform.

o <u>GlobalGiving Accelerator</u>





#### 1. EIT Health

Programs designed to empower different target audiences including patient organizations and advocates to engage in healthcare innovation and entrepreneurship.

- EIT Health Patient Innovation Bootcamps
- Women Entrepreneurship Programs

#### 2. EPF (European Patients' Forum) – Capacity Building Programme

Supports patient organizations in becoming more sustainable, influential, and professional through webinars, workshops, and mentoring.

 Topics: Governance, strategic planning, advocacy, communication, and fundraising.

Free resources and programs to gain necessary skills.



People Centric Solutions

Free resources and programs to gain necessary skills.

#### **3. PARADIGM – Patient Engagement Tools & Guidelines**

A set of free tools and frameworks to guide patient organizations on how to engage effectively with industry and researchers in medicines development.

Includes templates for agreements, metrics for impact, and best practices.

• PARADIGM Toolbox

4. EUPATI (European Patients' Academy on Therapeutic Innovation)
Offers free online courses and resources to train patient advocates in medical research, drug development, clinical trials, and regulatory processes.

o <u>EUPATI Toolbox</u>

o EUPATI Open Classroom





Free resources and programs to gain necessary skills. 5. Patient Focused Medicines Development (PFMD) Resources
Offers structured methodologies and tools to improve patient engagement
and professional interaction with pharma and regulatory bodies.

• PFMD Resources

#### 6. European Commission – Funding & Tender Portal Training

Free webinars and guides on how to participate in EU-funded projects (Horizon Europe, etc.)

Ideal for associations wanting to step into European funding frameworks.

o EU Funding & Tender Portal

# Toolkit on Empowering Leadership and Positive Governance by the European Patients' Forum (EPF)



# Toolkit for Patient Organisations on Patient Empowerment by the European Patients' Forum (EPF)



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# Fundraising Toolkit for Patient Organisations by the European Patients' Forum (EPF)





Free resources and programs to gain necessary skills specifically for Rare Diseases. 1. EURORDIS Open Academy

Free training for patient advocates to engage in research, regulatory affairs, HTA (Health Technology Assessment), and market access.

#### EURORDIS Winter & Summer <u>Schools</u>

 Digital School: Focus on digital skills, understanding of research, eHealth tools for patient organizations, and more.

#### 2. Global Genes – RARE University & Toolkits

Free educational resources, toolkits, and webinars specifically for rare disease advocates and organizations.

Topics: Fundraising, governance, collaboration, research readiness.

o Global Genes RARE University



Free resources and programs to gain necessary skills for Rare Diseases.

#### **People Centric Solutions**

- 3. <u>Rare Diseases International (RDI)</u> Advocacy & Policy Resources
   Provides toolkits and webinars to strengthen patient organizations' roles in global advocacy, governance, and collaboration strategies.
  - Members training: How to influence inernational actions through national advocacy
  - Youth Leadership Programme
  - RDI <u>Advocacy</u> and <u>Policy Resources</u>

#### 4. Beacon Empowering Rare Disease Communities

Provides training, resources, and networking opportunities to help rare

disease communities grow, professionalize, and drive meaningful change.

#### E.g., RareSummit, Patient Group Mentoring.

- Strategic planning and sustainability
- o Building capacity with AI
- <u>Networking with confidence masterclass</u>
- The Cambridge Rare Disease Showcase

# Share4Rare toolkit for Patient Advocacy

DELIVERABLE: Toolkit for Patient Advocacy (D1.4)		
Programme	Innovation Action	Advocacy & Advocacy & Education Strategy or
Call identifier	H2020-ICT-2016-2017	Education Strategy or Model
Торіс	Collective Awareness Platforms for Sustainability and Social Innovation	
Project Title	Social media platform dedicated to rare diseases, using collective intelligence for the generation of awareness and advanced knowledge on this large group of diseases	Advocacy & Advocacy & Advocacy & Communications
Start of Project	1 January 2018	
Duration	36 months	
Project acronym	Share4Rare	
Grant agreement number	780262	Advocacy & Advocacy Resources Templates
Number of the Deliverable	D1.4	
WP / task related	WP1/T1.5	
Dissemination level	PU public	
Date of delivery	31/12/2018	
Version	1.0	
Number of pages	88	Toolkit for Patient Advocacy
Lead partner	UPPMD	
Author(s)	Omaira Gill, Dimitrios Athanasiou, Suzie-Ann Baker	

Source: https://ec.europa.eu/research/participants/documents/downloadPublic?documentIds=080166e5c0509884&appId=PPGMS



## **Global Genes Rare Advocacy Exchange 2025**





#### People Centric Solutions



# "If I could go back..."

#### Let's take a moment to learn from each other! Using sticky notes, please answer the following questions based on your experience level:

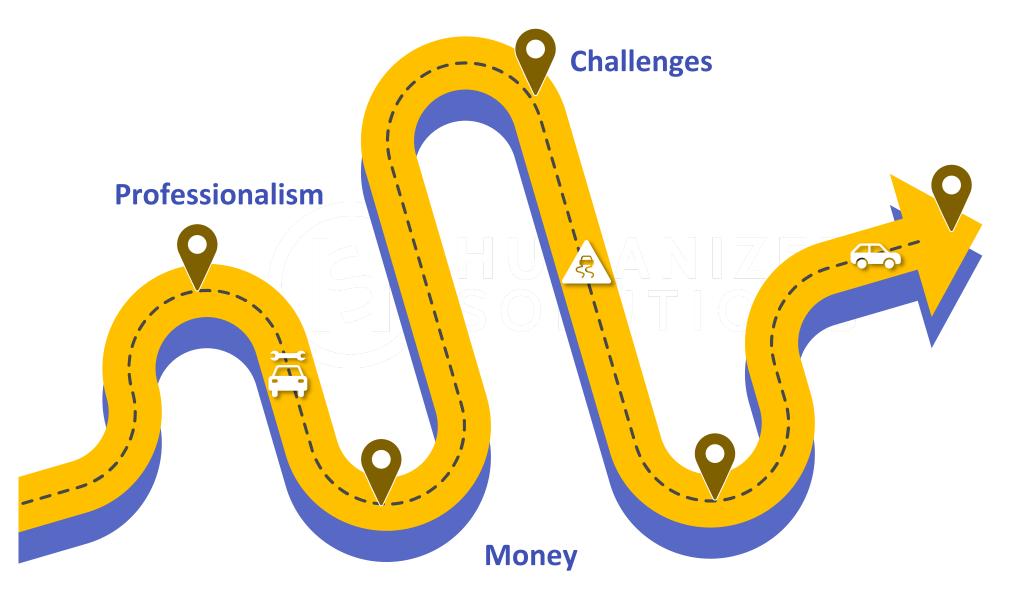
### **For experienced advocates (5+ years in a patient group or NPO):**

- "If you could give advice to your younger self when you started your association, what would you do differently?"
- "What has been the key factor that kept your organization going over the years?"

### **For new advocates (recently established associations):**

- "What is the biggest challenge you're facing right now?"
- "What support or resource do you think would help you reach the next level in your organization?"

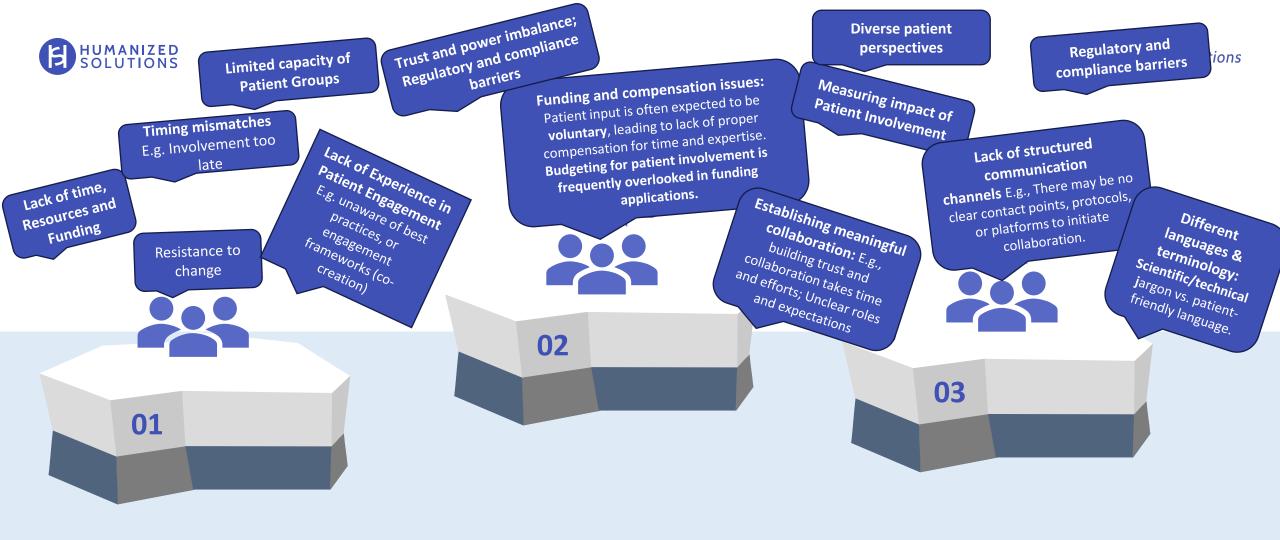








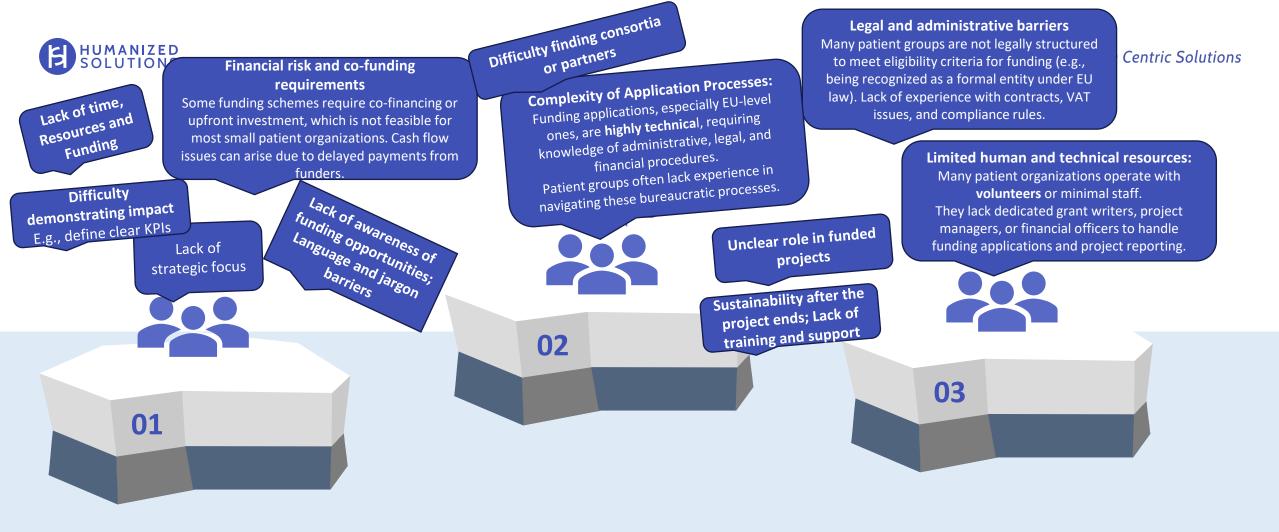
Challenges when researchers, medical doctors, companies, want to involve Patient Groups in funding opportunities



Skovlund, P.C., et al. The impact of patient involvement in research: a case study of the planning, conduct and dissemination of a clinical, controlled trial. Res Involv Engagem 6, 43 (2020). <u>https://doi.org/10.1186/s40900-020-00214-5</u>; Maccarthy J, et I. Facilitating public and patient involvement in basic and preclinical health research. PLoS One. 2019 May 14;14(5):e0216600. doi: 10.1371/journal.pone.0216600. PMID: 31086377; PMCID: PMC6516642; Simone Harmsen and others, Supporting health researchers to realize meaningful patient involvement in research: Exploring researchers' experiences and needs, Science and Public Policy, Volume 49, Issue 5, October 2022, Pages 751–764, <u>https://doi.org/10.1093/scipol/scac024;</u> Gibson A, Kok M, et al. Challenges and opportunities for involving patients and the public in acute antimicrobial medicine development research: an interview study. BMJ Open 2019;9:e024918. doi: 10.1136/bmjopen-2018-024918.

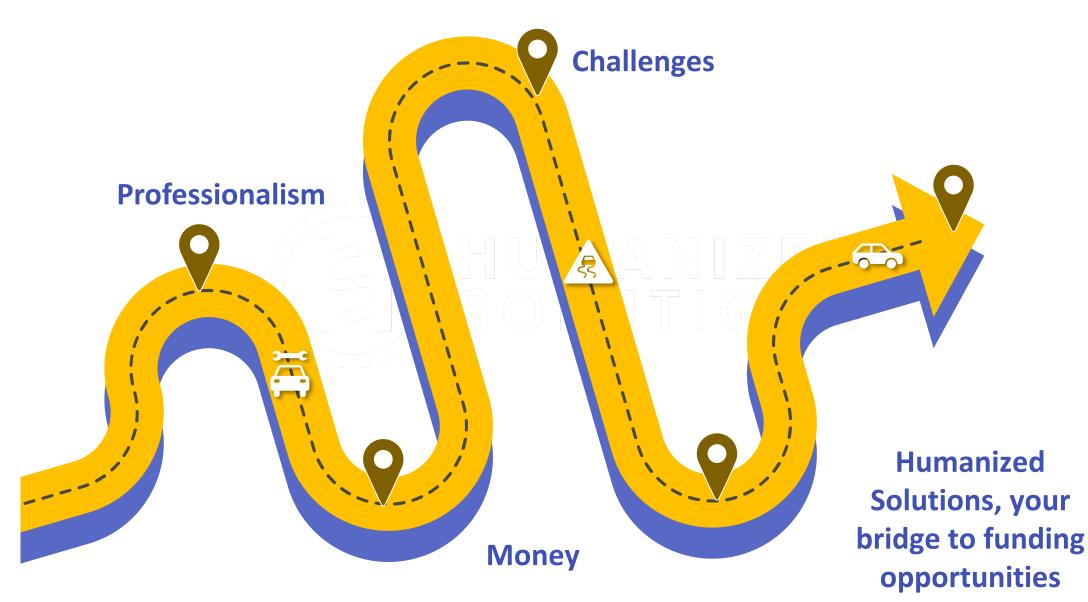


Challenges when Patient Groups engage with researchers, medical doctors, companies in funding opportunities



Skovlund, P.C., et al. The impact of patient involvement in research: a case study of the planning, conduct and dissemination of a clinical, controlled trial. Res Involv Engagem 6, 43 (2020). <u>https://doi.org/10.1186/s40900-020-00214-5</u>; Maccarthy J, et I. Facilitating public and patient involvement in basic and preclinical health research. PLoS One. 2019 May 14;14(5):e0216600. doi: 10.1371/journal.pone.0216600. PMID: 31086377; PMCID: PMC6516642; Simone Harmsen and others, Supporting health researchers to realize meaningful patient involvement in research: Exploring researchers' experiences and needs, Science and Public Policy, Volume 49, Issue 5, October 2022, Pages 751–764, <u>https://doi.org/10.1093/scipol/scac024;</u> Gibson A, Kok M, et al. Challenges and opportunities for involving patients and the public in acute antimicrobial medicine development research: an interview study. BMJ Open 2019;9:e024918. doi: 10.1136/bmjopen-2018-024918.







# **Overcoming challenges together: Humanized Solutions, your bridge to funding opportunities**



Humanized as the bridge between associations, researchers, pharma, and funding bodies. Our mission: We turn your potential into actionable partnerships and successful participation in funding opportunities from the conception of the projects.



## How Humanized helps you overcome these challenges

# 6. We simplify complex funding processes

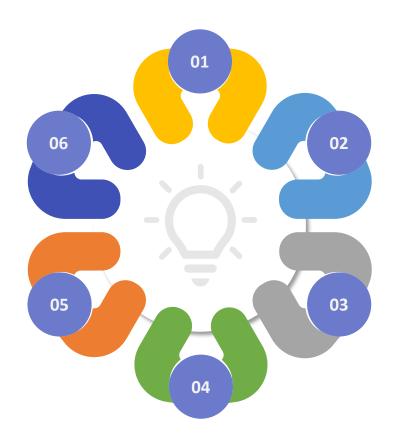
guiding you through every step — from identifying the right calls to participating in strong, competitive proposals. E.g. Easy to understand checklists.

# 5. We connect you with trusted partners

e.g., researchers, companies, and institutions looking for meaningful collaboration with patient groups.

#### 4. We translate between worlds

bridging the gap between scientific, corporate, and patient perspectives to ensure clear, effective communication.



#### 1. We structure your involvement

ensuring your role in projects is impactful, recognized, and never tokenistic.

#### 2. We provide tools and expertise

to professionalize your organization, making you a strong candidate for future collaborations and funding.

# 3. We advocate for your sustainability,

helping you think beyond a single project and build long-term strategies.

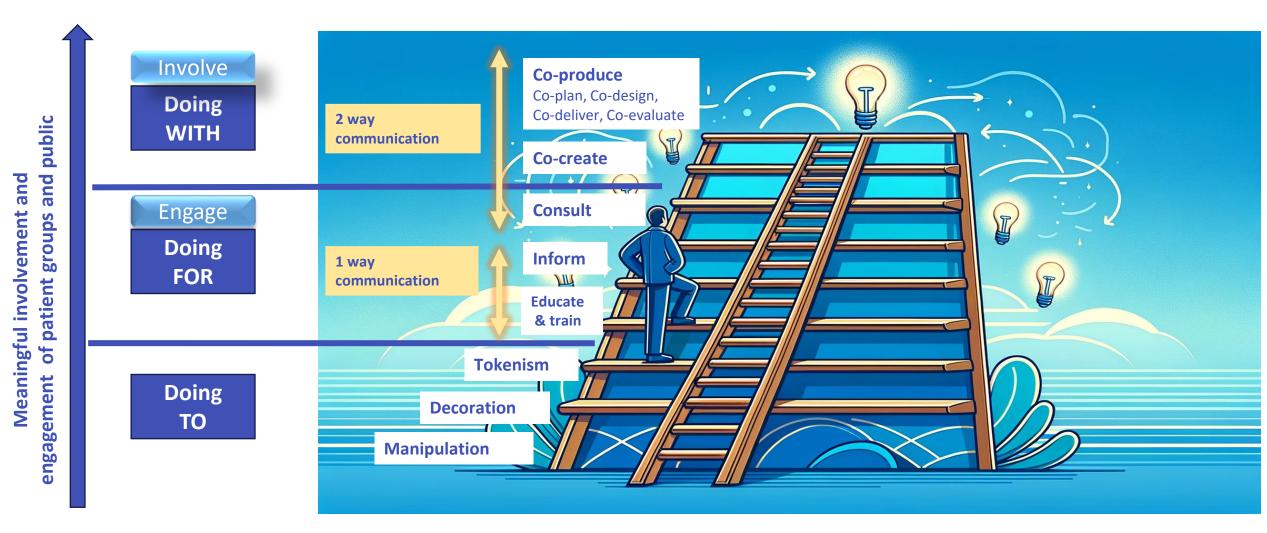
At Humanized, we believe that collaboration shouldn't be complicated — and that your passion deserves the right platform to

grow.



#### People Centric Solutions

## We ensure robust partnerships that meet specific people's needs and preferences.







### **MISSION**

Help stakeholders when they work *with* and *for* patients and citizens by actively involving them in every stage of the life cycle of medicines.

We are committed to promoting inclusive, patientcentered research, development, and access to safe and effective medications. Through collaboration and engagement, we strive to enhance the overall well-being and healthcare outcomes of individuals.

# VISION

Our vision is a future where patients and citizens have a meaningful voice and are integral partners in shaping the development and use of medicines.

We envision a healthcare system that embraces diversity, values patient perspectives, and ensures equitable access to innovative and reliable treatments. By fostering a culture of collaboration and transparency, we aim to transform the landscape of medicine to better serve the needs of all.

## VALUES

- Patient-Centered Approach
- Inclusivity and Diversity
- Collaboration and Engagement
- Ethical and Transparent Practices
- Advocacy and Empowerment
- Evidence-Based Decision Making

By adhering to these mission, vision, and values, Humanized is dedicated to fostering a patient-centered healthcare system that respects the rights and preferences of individuals, promotes collaboration, and ultimately improves the lives of patients and citizens.

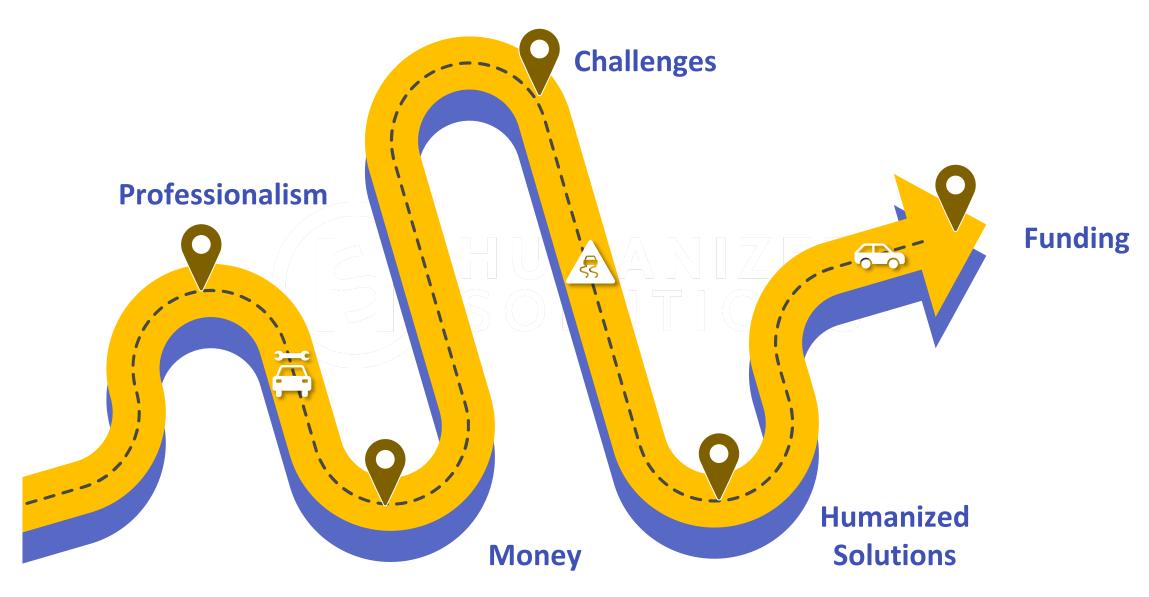


## Our mission is closely aligned with 7 several Sustainable Development Goals (SDGs)



By ensuring that our solutions are inclusive and accessible, we support the ethos of leaving no one behind, which is at the heart of the SDGs. Additionally, by adopting environmentally sustainable practices, we can contribute to climate action and responsible consumption and production.



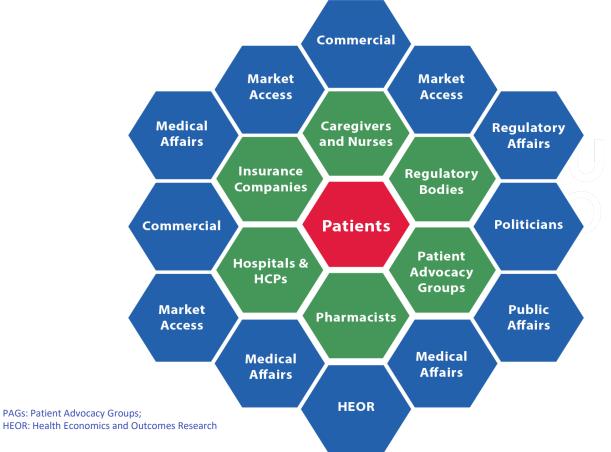


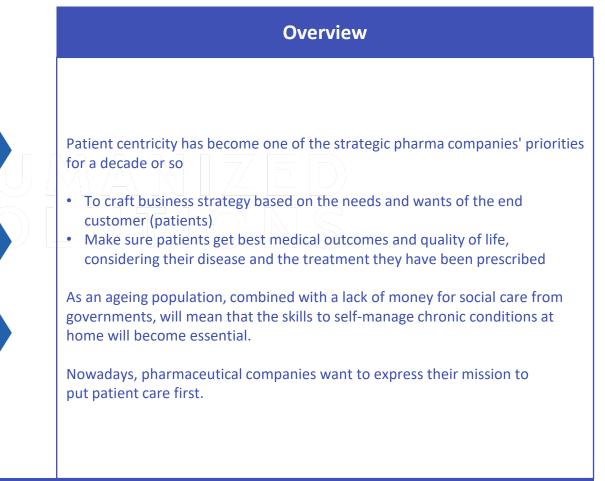






### Patients at the heart of business strategy

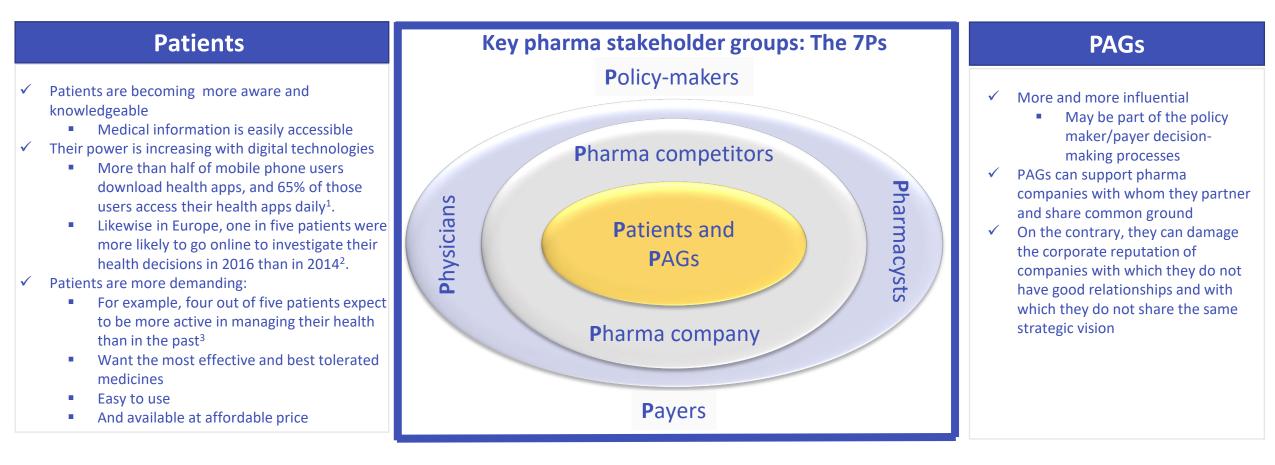




Nowadays, all stakeholders want to speak with the patient: "from buzzword to activation"



# Importance of Patients and Patient Advocacy Groups (PAGs) in pharma business model



#### The patient voice gained power and has an increasing role on corporate reputation and impacts the products all along their life cycle

1. Krebs, Paul, and Dustin T. Duncan. "Health App Use Among US Mobile Phone Owners: A National Survey." *JMIR mHealth and uHealth* 3, no. 4 (2015). doi:10.2196/mhealth.4924.; 2. Decision Resources Group is now Clarivate. (n.d.). Clarivate. Retrieved April 18, 2024, from https://clarivate.com/drg-is-now-clarivate/?lid=d 3. "Self Care in Today's Changing Healthcare Environment." NCPIE; Ipsos; Pfizer.





## "Myth or Fact?" (Quick Quiz)

- "You need to be a large organization to apply for EU funding."
- "Patient groups can't be official partners in research projects."
- "All funding applications require co-funding."
- "European projects only fund scientific research."
- "You must already have partners before looking for funding opportunities."
- "Administrative tasks in funded projects are handled by the coordinator, so patient groups don't need to worry about them."
- "Patient associations can't influence policy through funded projects."



## Importance of Patient and Public Involvement and Engagement (PPIE): Requirements of Funding and Regulatory Bodies



- Patient and Public Involvement and Engagement is now a requirement of many funding bodies, leading to an increased focus on patient involvement in research, drug, medical device and digital initiatives.
- Similarly, regulatory bodies are recognizing the value of Patient and Public Involvement and Engagement in ensuring the safety and efficacy of healthcare products and services.
- Incorporating PPIE approach into healthcare initiatives not only enhances their relevance and effectiveness, but also ensures alignment with the requirements of funding and regulatory bodies.
- This further emphasizes the importance of listening and integrate the patient and citizen voice in driving people-centric innovation and improving healthcare outcomes.

# The Value of Patient Involvement in EU Health Related Projects and Policy by European Patients' Forum (EPF)



Source: https://www.eu-patient.eu/globalassets/library/conferenceseminarreports/epf-gothenburg-2009-report.pdf

#### **People Centric Solutions**

#### Citizens, Equality, Rights and Values programme

This programme aims to protect and promote rights and values as enshrined in the EU Treaties and the Charter of Fundamental Rights in particular by supporting civil society organisations active at local, regional, national and transnational level.



In this short video, representatives of organisations working to protect and promote EU rights and values talk about the CERV programme.

They explain its four main pillars and what the programme is working to achieve.

They also explain how an organisation interested in taking part in the programme can apply for funding.

#### The CERV programme in a nutshell

The Citizens, Equality, Rights and Values (CERV) programme was launched in 2021 and will run for seven years until 2027. It was created along with the 2021-2027 Justice programme under the Justice, Rights and Values Fund.

The CERV programme seeks to support and develop open, rights-based, democratic, equal and inclusive societies based on the rule of law. That includes a vibrant and empowered civil society, encouraging people's democratic, civic and social participation and cultivating the rich diversity of European society, based on our common values, history and memory.

The CERV programme has four pillars:

1. Equality, Rights and Gender Equality - promoting rights, non-discrimination, equality (including gender equality), and advancing gender and non-discrimination mainstreaming

2. Citizens' engagement and participation - promoting citizens engagement and participation in the democratic life of the Union, exchanges between citizens of different Member States, and raising awareness of the common European history

3. Daphne - fight violence, including gender-based violence and violence against children

4. Union values - protect and promote Union values

Civil society organisations active at local, regional, national and transnational level, as well as other stakeholders, can apply to receive CERV funding for initiatives aimed at citizens' engagement, equality for all and the protection and promotion of rights and EU values.



European Commission EU Funding & Tenders	s Portal				Sign in EN
A Home         Funding ▼         Procurement ▼         Projects & results ▼         News	s & events ▼ Work as an expert Guidance & documents ▼			Search	۹ 🦧
Home > Funding > Calls for proposals > Access to health and care services for	r people in vulnerable situations				
Access to health and care services for people HORIZON-HLTH-2024-CARE-04-04-two-stage	e in vulnerable situations				
Topic Call for proposal					
Internal navigation	General information				
GENERAL INFORMATION	Programme		Budget overview		
TOPIC UPDATES	Horizon Europe Framework Programme (HORIZON) Call				
TOPIC DESCRIPTION	Ensuring access to innovative, sustainable and high-quality health care (Two stage - 2024) (HORIZ	ON-HLTH-2024-CARE-04-two-stage)			
DESTINATION	Type of action HORIZON-RIA HORIZON Research and Innovation Actions	Type of MGA HORIZON Lump Sum Grant [HORIZON-AG-LS]	(a Closed)		
CONDITIONS AND DOCUMENTS	Deadline model		Deadline dates		
START SUBMISSION	two-stage	Opening date 30 March 2023	19 September 2023 17:00:00 Brussels time 11 April 2024 17:00:00 Brussels time		
TOPIC Q&AS					

#### Topic updates

#### Feb 13, 2024 12:10:30 PM

In order to best ensure equal treatment, successful stage 1 applicants do not receive the evaluation summary reports (ESRs) for their proposals, but this generalised feedback with information and tips for preparing the full proposal.

#### Information & tips

- The proposals should address all the individual sub-criteria in each appropriate section of the
  proposal (Excellence, Impact, Implementation). E.g., the state of the art should be clearly
  referenced, the methodology and where relevant the technical robustness of AI should be
  clearly described, the pathways to the expected outcomes and impacts, the scale and
  significance of project's contributions to the expected outcomes, and all other aspects need to
  be addressed.
- Please be reminded, as per the topic text, that proposals are expected to involve the people/groups studied in the design and implementation of the research and innovation activities and where relevant service providers and other stakeholders.
- Multidisciplinary and social sciences and humanities (SSH) aspects should be duly considered and integrated in the methodology.
- If your proposal contains clinical studies, please read carefully the definition and guidance on the template 'Information on clinical studies' published on the call page in the Participant Portal (Information on clinical studies (HE) [2]) and remember to upload the template filled in when submitting your proposal.
- In stage 2 the eligible costs will take the form of a lump sum contribution as defined in the Decision of 7 July 2021 authorising the use of lump sum contributions under the Horizon Europe Programme. To get started, please read lump sum funding L<sup>2</sup> and the guide Lump sum funding - what do I need to know L<sup>2</sup>, with details on how to complete the Excel workbook. Recommended: Excel 2013 (Windows) / Excel 2016 (Mac OS) or more recent.



## **Importance of PPIE: Requirements of Funding and Regulatory Bodies**

Horizon Europe	<b>Citizen engagement and the engagement of industry, social partners and civil society actors</b> are critical to reinforce trust in science, and to facilitate and secure the innovation process and its uptake. Check <u>HERE</u>
European Partnership On Transforming Health And Care Systems (THCS)	() implementation of personalised prevention strategies in health and care services, also to make them <b>person-centred and better</b> <b>adjusted to people's needs</b> (). Check <u>HERE</u>
Innovative health initiative Joint Undertaking (IHI JU)	() <b>aims to translate health research and innovation into real benefits</b> <b>for patients and society,</b> and ensure that Europe remains at the cutting edge of interdisciplinary, sustainable, patient-centric health research.
	Check <u>HERE</u>
Citizens, Equality, Rights And Values (CERV)	() promoting <b>citizens engagement and participation</b> in the democratic life of the Union, exchanges between citizens of different Member States (). Check <u>HERE</u>



### **Importance of PPIE: Requirements of Funding and Regulatory Bodies**

Marie SkłodowskaCurie Actions (MSCA)	() building new and sustainable international and inter-sectoral partnerships and networks; better transfer of knowledge between sectors and disciplines (). Check <u>HERE</u>
Rising Tide Foundation for Clinical Cancer Research (RTFCCR)	() supports truly innovative and unique <b>patient-centered clinical trials</b> with the potential to timely impact the lives of cancer patients. Check <u>HERE</u>
Horizon Europe: Widening participation and strengthening the European Research Area	() strengthen their potential for successful participation in transnational research and innovation processes, promote networking and access to excellence. Check <u>HERE</u>
Erasmus +	() strengthens cooperation ties () through learning mobility, education exchanges and capacity building, nurturing social resilience, () active participation and ensuring regular channels for people-to-people contacts and connectivity worldwide. Check <u>HERE</u>



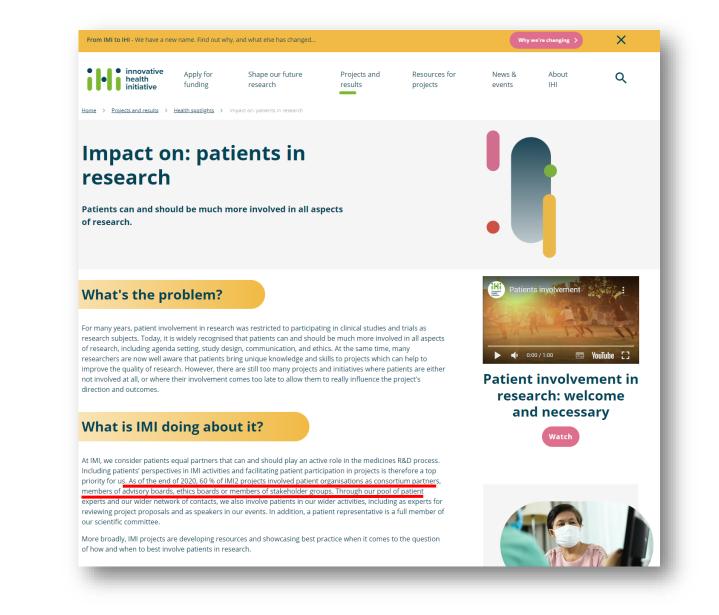
## **Importance of PPIE: Requirements of Funding and Regulatory Bodies**

Horizon Europe: Health	() including through <b>patient/citizen engagement, community involvement or other forms of social innovation approaches</b> , such that research and innovation activities are adjusted to the users' particular expectations, needs, constraints and potential. Check <u>HERE</u>
Horizon Europe: Culture, Creativity and Inclusive Society	They will aim to expand political participation, social dialogue and social inclusion, <b>civic engagement</b> and gender equality. Check <u>HERE</u>
Horizon Europe: European Innovation Council	() promoting the replication of best practices in the innovation field; <b>enhanced citizens' involvement</b> in the decision-making process (). Check <u>HERE</u>
Horizon Europe: European Innovation Ecosystems	() strengths of national, regional and local ecosystems and encouraging the involvement of all actors and territories to reinforce network connectivity for sustainably business growth (). Check <u>HERE</u>



## **Innovative Health Initiative (IHI)**

- The total budget for Innovative Health Initiative (IHI) for the period 2021-2027 is €2.4 billion.
- €1.2 billion comes from Horizon Europe, the EU's framework programme for research and innovation.
  - €1 billion will come from the IHI industry partners
  - €200 million will come from other life science industries or associations that decide to contribute to IHI as contributing partners.





#### IHI / IMI is...

<b>Innovative Health</b>	Initiative	(IHI)
--------------------------	------------	-------

creating a pool of patient experts	Building on the success of the IMI patient pool launched in 2019, IHI has launched a new patient pool which is 120 participants strong. Although patients have been involved in IMI activities since our creation, the pool of patient experts was established to further strengthen the role and voice of patients in IHI and IMI activities at both strategic and operational levels. IHI's patient pool is 70% female, from 25 countries and consists of a combination of patients and caregivers.
encouraging patient organisations to participate in the development of IMI call topics	Patient organisations with their own research funding programme could b <u>ecome Associated Partners of IMI</u> and contributed to the definition and scope of call topics. Leading patient organisations, trusts and charities like Autism Speaks, Autistica, JDRF, the International Diabetes Federation, Children's Tumor Foundation, Parkinson's UK, TB Alliance, and Obesity Action Coalition were Associated Partners and contributed to IMI projects on various disease areas like diabetes, autism, neurodegenerative diseases and cancer.
encouraging patient organisations to become project partners	More than 30 patient organisations, including the Eu- ropean Patients' Forum, Alzheimer Europe and Eurordis are full project partners within IMI projects. Their contribution to the consortium includes valuable input on many aspects of the project, by helping define the outcomes that will genuinely benefit patients, determining the appropriate benefit-risk balance in new treatments and providing input into the best ways to involve patients in project governance. Examples of projects that have successful integrated patient organisation partners include <u>HIPPOCRATES</u> .
promoting patient participation in advisory roles	Within IMI, a patient representative sat as a full member on the IMI Scientific Committee, and IMI/IHI advise that patients are invited to sit on advisory and ethics advisory boards to give their unique perspectives and have impact on medical research.
promoting patient engagement in medical research	For meaningful patient involvement in research, it helps if patients understand the medicines development process and the jargon associated with it. IMI's <u>EUPATI</u> and <u>EFOEUPATI</u> projects created a wealth of educational



## **Innovative Health Initiative (IHI)**

promoting patient education	For meaningful patient involvement in research, it helps if patients understand the medicines development process and the jargon associated with it. IMI's <u>EUPATI</u> and <u>EFOEUPATI</u> projects created a wealth of educational resources designed specifically for patients who want to get involved in research. The course has trained over 200 patient experts and more than 4 million people have accessed the multi-lingual toolbox. The projects' legacy lives on through the <u>EUPATI Foundation</u> .
sharing best practice on patient involvement in research projects	Many IMI projects have involved patients in their activities in diverse ways, and have shared their experiences and lessons learnt with the wider scientific and patient communities. For example, <u>U-BIOPRED</u> produced ' <u>A short guide to successful patient involvement in EU-funded research'. APPROACH</u> published an article in Research Involvement and Engagement on ' <u>Making the patient voice heard in a research consortium: experiences from an EU project (IMI APPROACH)'. EPAD published an article in the same journal on '<u>Involving research participants in a pan- European research initiative: the EPAD participant panel experience'</u>.</u>



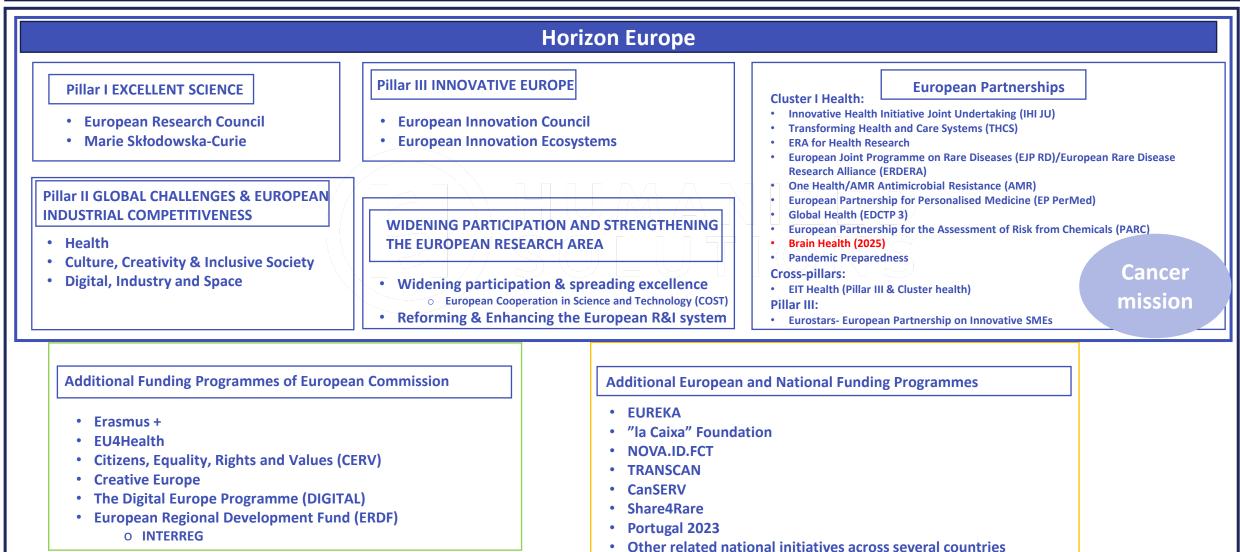
## Humanized Solutions: Support EU and National Funding Initiatives

- Humanized Solutions engages in European and national funding initiatives
- Taking on roles such as Work Package (WP) leaders or leading tasks within WPs, subcontractors, advisors or expert evaluators
- Currently, assessing opportunities to become coordinators
- Contributing our expertise to drive innovation and success in funding initiatives
- We secure that Patient Groups are involved since the conception of the projects





#### Humanized Solutions: Support European and National Funding Initiatives across several countries





## **Collaboration over competition: In Rare Diseases, creativity and collaboration are** survival tools



2. Cross-Disease collaboration models e.g. EURORDIS, ERNs, Global Genes – Rare Portal

3. Shared challenges = Shared

**Solutions** e.g. Solutions developed for one disease

- awareness campaigns, patient registries, digital health tools - can often be adapted across conditions. Collaboration allows for resource efficiency and faster innovation).



4. The Power of consortia in funding

e.g. European funding (e.g., Horizon Europe) rewards collaboration.

**5. Creativity as a necessity** e.g. joint awareness campaigns, shared platforms for patient data, co-host events etc "Necessity is the mother of invention" — in rare diseases, this translates to innovative partnerships.

#### 6. Scientific and industry shifts

e.g. Pharma and biotech are increasingly embracing patient-centered R&D, Collaborative models like Public-Private Partnerships (PPPs) and Open Science

Whether it's joining forces for awareness, research, or advocacy, collaboration turns scarcity into opportunity. Together, we go further—collaboration fuels sustainability.



With our consulting and research services, we ensure that your research and innovation projects are in harmony with patient and public needs and preferences, thus aligning with current requirements of funding bodies



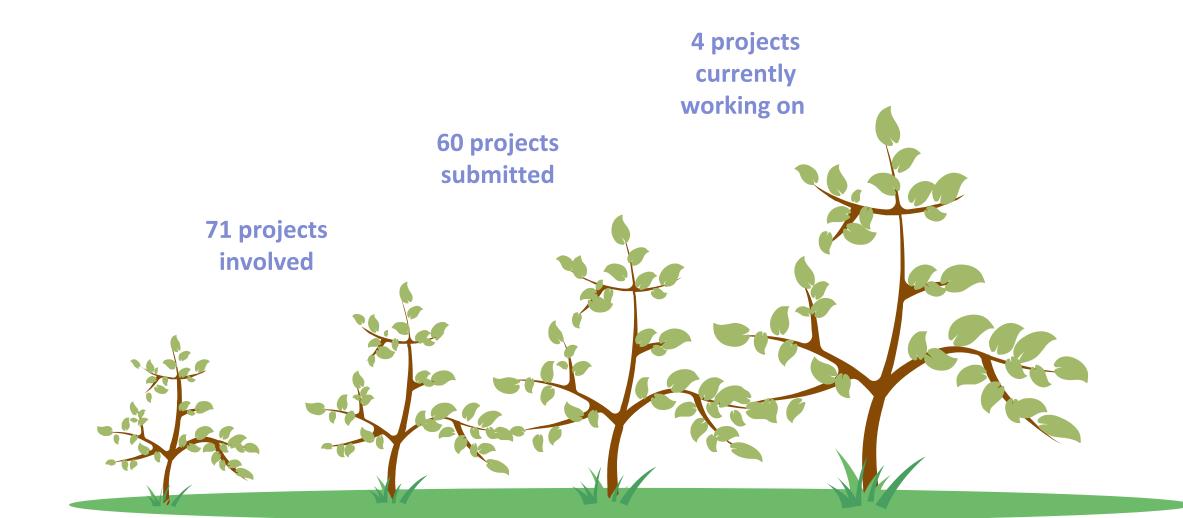


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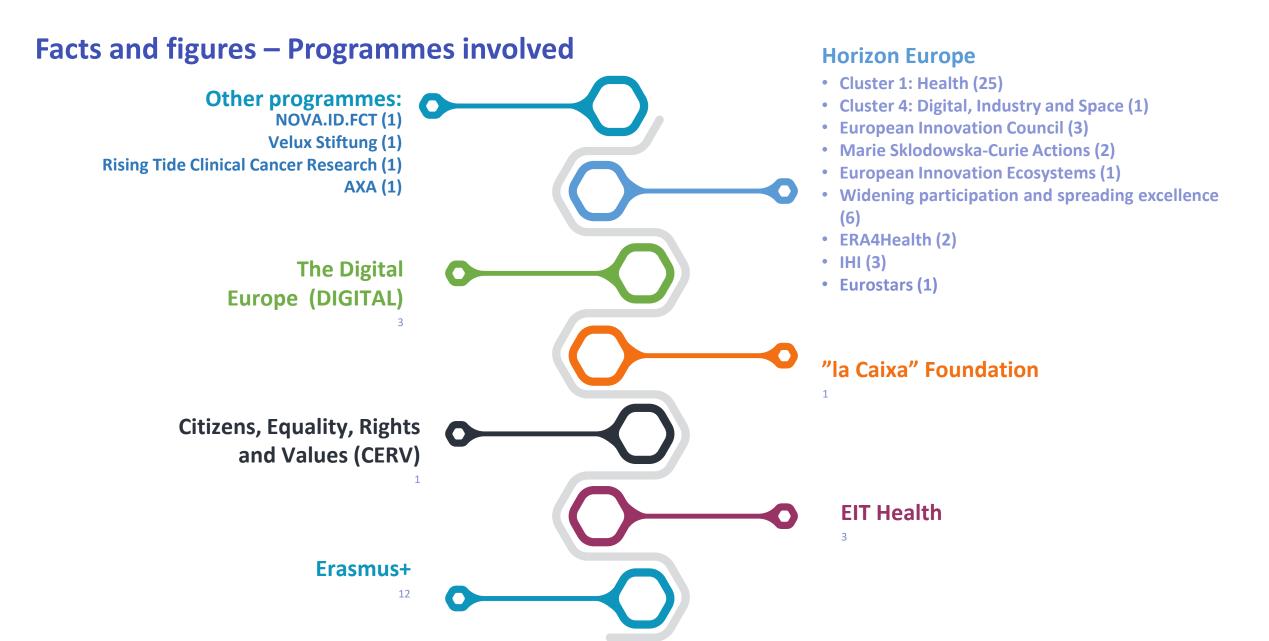




## Facts and figures – Numbers from September 2023 to October 2024

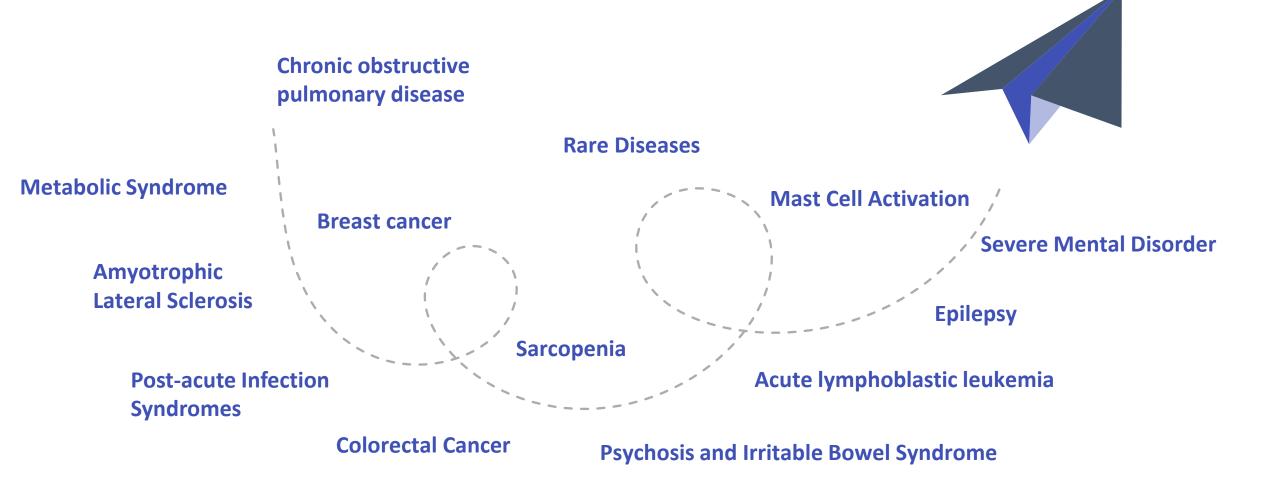








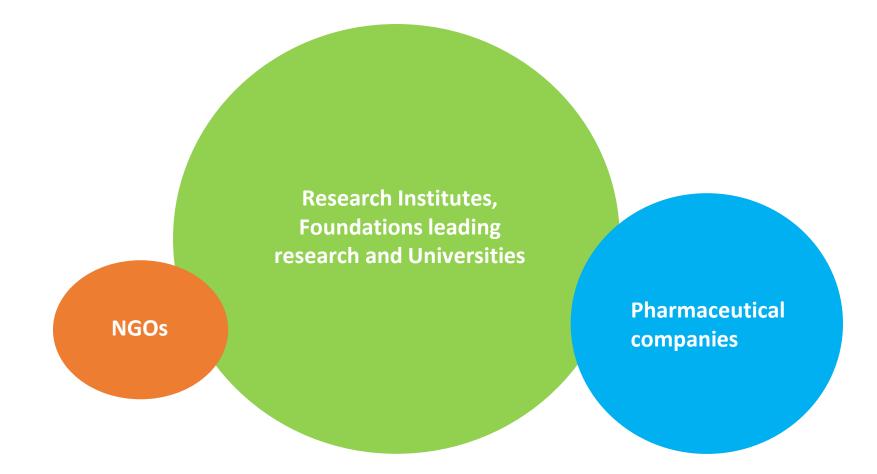
### **Facts and figures – Examples Therapeutic areas**







## Facts and figures – Main drivers from the projects





#### Horizon Europe strategic plan 2025-2027





The long-term global challenges faced by the EU require solutions that integrate scientific advances, technological innovation, and social and other forms of innovation. Going beyond the technical paradigm, leveraging social innovation gives rise to solutions that prove more adapted and robust. Moreover, such solutions may result in:

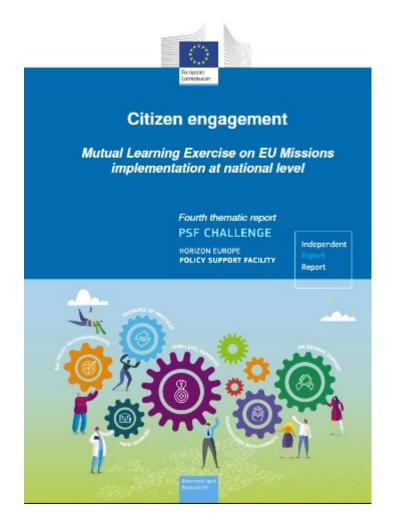
- a greater sense of involvement and greater buy-in by citizens, businesses, social partners and public authorities;
- active, democratic participation in the design of effective and meaningful solutions;
- changes in individual behaviour, work organisation and social practices;

Social innovation is innovation that is social in ends and means. It takes the form of new products, services and business models that simultaneously meet social needs more effectively than alternatives and create new social relationships or collaboration. Social innovation is not only good for society, but also enhances society's capacity to act on common challenges.

Source: Directorate-General for Research and Innovation (European Commission). (2024). Horizon Europe strategic plan 2025-2027. In *Publications Office of the European Union*. Publications Office of the European Union. <a href="https://op.europa.eu/en/web/eu-law-and-publications/publication



## **Civic engagement on EU Missions implementation at national level**





**EU Smart Cities Information System** 

Source: European Commission: Directorate-General for Research and Innovation and Conway, R., *Citizen engagement – Mutual learning exercise on EU missions implementation at national level – Fourth thematic report*, Conway, R.(editor), Publications Office of the European Union, 2024, <u>https://data.europa.eu/doi/10.2777/395232</u>. European Innovation Partnership on Smart Cities and Communities (EIP-SCC). (2021). Citizen Engagement Solution Booklet. Smart Cities Marketplace. Retrieved from <u>https://smart-cities-marketplace.ec.europa.eu/sites/default/files/2021</u>. 02/scis solution booklet citizen engagement.pdf

**People Centric Solutions** 



## **Overview of public engagement in research & innovation** Mutual learning exercise on public

engagement: first thematic report



Directorate-General for Research and Innovation (European Commission), & Billgren Askwall, C. (2024). Overview of public engagement in research & innovation: mutual learning exercise on public engagement : first thematic report. In *Publications Office of the European Union*. Publications Office of the European Union. Publications of the European Union. Publication-detail/-/publication-detail/-/publication/detail

# Patient Involvement for Applicants by Patvocates

RISING TIDE.) Foundation Patvocates	RISING TIDE.) Foundation
	Contents
atient Involvement for Applicants	1 Glossary
	2 Checklist when planning patient involvement
	2.1 Proposal preparation and application phase
	2.2 Project Plan
	2.3 Beyond the project
	3 Potential contributions of patients to research projects
	4 Choice of models of patient involvement in research projects
	4.1 Choosing suitable models of patient involvement in research projects
	4.2 Involvement models in research projects: roles, impact, effort, pros and cons
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	5 Identification of patient partners – and resourcing their contribution
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	5.3 Appropriate funding of patient involvement
	6 Patient Involvement Plan
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	8.1 Patient Focused Medicine Development (PFMD)
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	8.4 INVOLVE (UK)
	8.5 Macmillan "Building Research Partnerships" (UK)
	8.6 Journal of Research Involvement and Engagement
	8.7 Guy Yeoman and Mitchell Silva: Patient Engagement for the Life Sciences
	<ol> <li>Bulia Cartwright, Sally Crow, Carl Heneghan, Rafael Perera, Douglas Badenoch: Patient ar</li> </ol>
	Public Engagement Toolkit
	9 Authoring and acknowledgements
rsion: 1.5 ite issued: 22 June 2021	

## Public and Patient Involvement Guidance for Researchers



# Guidance for researchers

PARKINSON'S<sup>UK</sup> CHANGE ATTITUDES. FIND A CURE. JOIN US. A short guide to successful patient involvement in EU-funded research Lessons learnt from the U-BIOPRED project by IMI





## A short guide to successful patient involvement in EU-funded research

Lessons learnt from the U-BIOPRED project





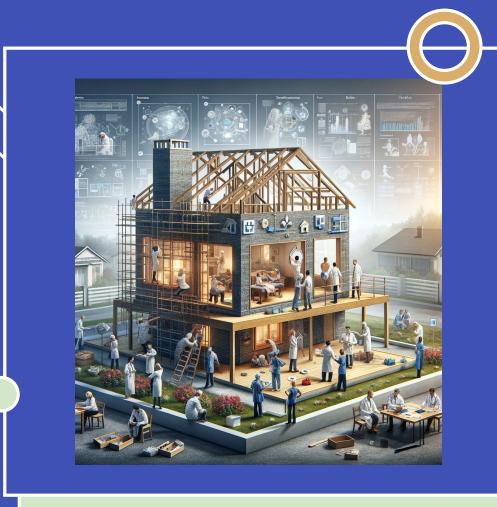
etpia European Federation of Pharmaceutical Industries and Associations

# Short guide on patient partnerships in rare disease research projects



Source: https://www.ejprarediseases.org/wp-content/uploads/2021/03/SHORT-GUIDE-ON-PATIENT-PARTNERSHIPS-IN-RARE-DISEASE-RESEARCH-PROJECTS.pdf

Our consultancy offers specialized expertise and services in facilitating Patient and Public Involvement and Engagement across diseases and healthcare sectors.







Explore our consultancy expertise and services







Explore our consultancy expertise and services



We provide expert training, teaching, coaching, mentoring, and skills development services.





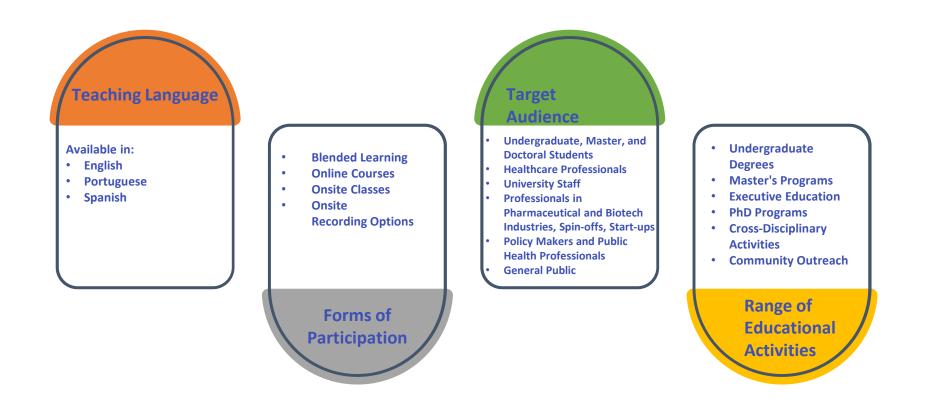
### **Expert training and development services**



- Humanized Solutions provides a range of services to develop skills and knowledge
- We offer expert training in patient-centric healthcare innovations
- Our teaching covers a variety of topics and is tailored to meet individual needs
- Coaching and mentoring are available for individuals or groups
- We focus on developing skills through practical, hands-on experience



### **Overview**



In our training activities, we utilize a project-based learning (PBL) approach to foster practical skills and real-world problem solving. PBL is characterized by its focus on student-centered inquiry and exploration, emphasizing critical thinking, problem-solving, and the integration of various skills across disciplines. Students are encouraged to work collaboratively, think creatively, and apply their knowledge in practical, often interdisciplinary, contexts.



#### Workshops & Trainings offer: "Empowering healthcare through patient-centricity"

Patient-focused healthcare workshops covering digital health to ethics, customizable for any healthcare audience.

#### Summer & Winter Schools: "Innovations in Patient-Centric healthcare"

A 2-3 week healthcare program that enhances skills, networking, and learning through PPIE education with cultural insights.

#### Advanced training in patientcentric healthcare innovations

Tailored for evolving patient-centric care and PPIE needs in healthcare, enhancing practical and theoretical understanding.

#### MOOCs (Massive Open Online Courses) & Online Courses: "Learning opportunities in Patient-Centric Healthcare Innovation using digital platforms"

Flexible, expert-led training in patient-centric healthcare, enabling professionals to learn at their own pace, network globally, and stay updated in the field.

#### People Centric Solutions

#### **Coaching and Mentoring program to elevate Patient and Public Involvement and Engagement (PPIE) in healthcare**

Enhances healthcare professionals' skills in patient communication and engagement, through targeted workshops and coaching, aiming to improve outcomes and build trust.

#### Soft skills development programs when working with patient groups and the general public

Enhances healthcare professionals' soft skills in communication, teamwork, and leadership for improved effectiveness and patient interaction, using workshops and exercises.

## Other educational opportunities, e.g. speaker

Enhancing healthcare education, providing motivational speaking and facilitation by experts, fostering patient-centered engagement.





Methodology Used by Humanized Solutions



## **Our scientific methods and techniques**

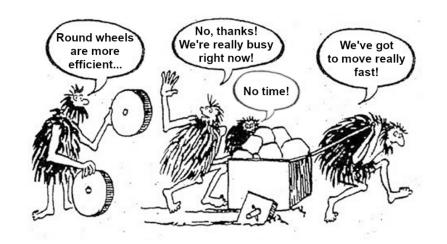




## **Our scientific methods and techniques**









**At Humanized** we are patient advocates. **Patients are** waiting, no time to reinvent the wheel.



## Maximizing impact: How our Desk Research methodology fuels our Evidence-Based Approach (EBA) when tailoring services?

Efficiency

**Cost-effectiveness** 

**Evidence-based** 



#### **Avoiding duplication**

**Comprehensive insight** 

We start every project with comprehensive desk research to tap into existing knowledge. Our commitment to desk research is central to our evidence-based approach, ensuring each project is innovative, practical, and tailored to specific needs.



Lay language

summaries (LS)

and in Plain Language

Summaries (PLS)

Plain Language Summaries

(PLS) of Publications Toolkit

Clinical Trials Expert Group Roadmap Initiative to Good Lay

**Envision Pharma** 

**Summary Practice** 

#### Patient engagement planning, conducting, evaluation and monitoring

PARADIGM
Patient Engagement Toolbox

Suggested Working Practices Checklist

COI Guidance tools

EATRIS, EPF, EATG Patient Engagement Resource Centre PFMD Patient Engagement Quality Guidance (PEQG)

Practical Guiding Principles on remuneration

Practical Guiding Principles on Reasonable Agreements between Patient Advocates and Pharmaceutical Companies



Patient Engagement in Clinical Trial Protocol Design

PFMD Practical How-to Guides for Patient Engagement

How-to Guide on patient engagement in clinical trial protocol design

TransCelerate BioPharma Patient Protocol Engagement Toolkit (P-PET)

We guide you in selecting the tools that best align with your objectives.





#### **1** Define your mission & focused objectives

Before seeking funding or partners, be clear about:

- Who you are
- What you want to achieve
- Why it matters

◆ Focus on specific, actionable goals that align with potential funders' priorities (e.g., research involvement, patient support, awareness campaigns).

#### **2** Map relevant funding opportunities

Research national, European, and private funding programs (e.g., Horizon Europe, EIT Health, foundations). Subscribe to newsletters, platforms, and alerts:

- EU Funding & Tenders Portal
- Patient advocacy networks (EURORDIS, EPF) Keep a calendar of upcoming calls.



3 Identify and connect with potential partners Look for:

- Identify common goals Look for organizations with overlapping missions where collaboration creates mutual benefit (e.g., awareness, research involvement, policy influence).
- Researchers in your disease area
- Pharmaceutical companies with related interests (ensure transparency e.g. code of conduct like the EPFIA or national ethical guidelines, define clear boundaries to maintain independence, negotiate fair value to ensure compensation for your time, data or involvement, focus on mutual goals, use written agreements, avoid exclusivity, engage patient meaningfully using EUPATI or PARADIGM frameworks to guide collaboration)
- Other existing patient organizations for joint initiatives

#### Share best practices & resources: Pool knowledge, tools, and networks

Use platforms like:

- LinkedIn
- ResearchGate
- EU consortia networks
- Events & conferences
- Tip: Don't wait for invitations—proactively reach out expressing your interest to collaborate.



### 4 Build your professional profile

Prepare a Partner Presentation Pack:

- Short description of your association
- Your strengths (community reach, patient insights, advocacy experience)
- Past collaborations or success stories

Show that you're organized, reliable, and ready to contribute.

## **5** Learn the basics of funding applications

Understand typical requirements:

- Work Packages (WPs)
- Impact sections
- Budgeting
- Patient Involvement frameworks

Use free training resources (EUPATI, EURORDIS Open Academy, NonprofitReady). Sign up for Info days Secure your PIC or OID number



#### 6 Leverage existing tools & agreements

Use templates for:

- Memorandums of Understanding (MoUs) to formalize partnerships (clarify roles, expectations & shared outcomes)
- Patient engagement agreements

Refer to frameworks like PARADIGM Toolbox or PFMD for best practices.

#### 7 Join a consortium or start small

Look for consortia already forming for calls of interest.

If you're leading, start with smaller grants or local funding to build experience before jumping into large EU projects





#### **8** Plan for sustainability

Funders want to see how your project will live beyond the funding period. Include sustainability strategies:

- Future partnerships
- Ongoing community engagement
- Potential for scaling

#### 9 Monitor, evaluate, and showcase your impact

Set simple KPIs (Key Performance Indicators). After any funded project, document outcomes. Use success stories to strengthen future applications and attract more partners.



#### **10** Get support

Work with facilitators like Humanized to:

- Find the right partners
- Navigate funding calls
- Ensure your involvement is impactful and recognized

**Key takeaway:** 

Engaging with funding and partners is not just about applying—it's about building relationships, showing value, and being prepared. Start small, stay focused, and grow your network step by step.

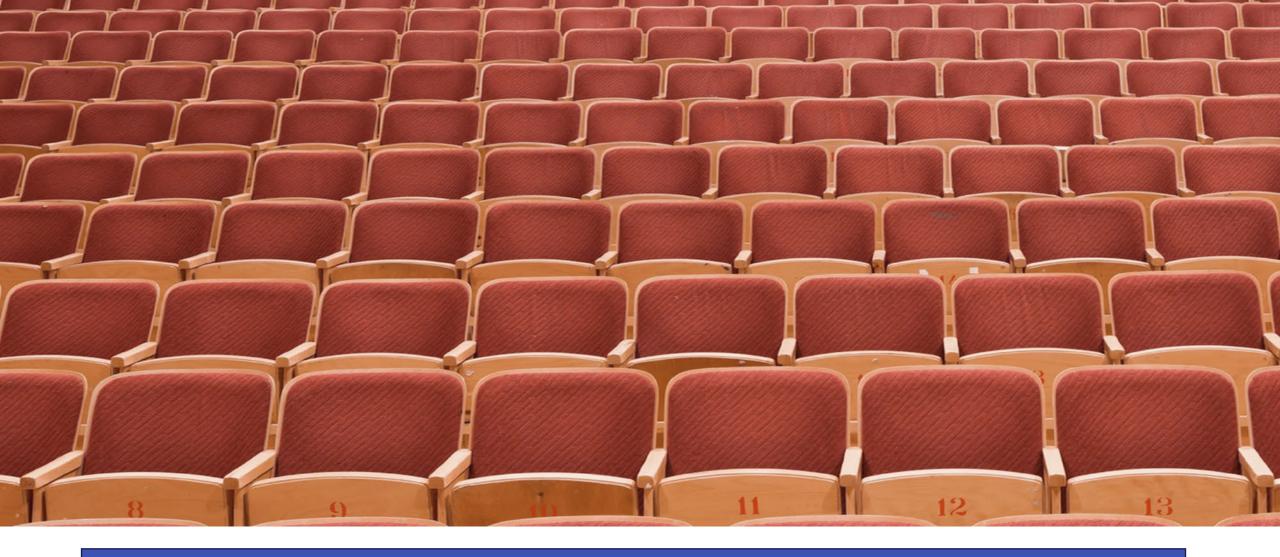
# Wishes at Humanized



HUMANIZED



Brooke, N., Bedlington, N., & De Schryver, D. (2019, September 19). Building a global patient engagement framework [PowerPoint Slides]. https://patientengagement.synapseconnect.org/resources/peof2019-building-global-patient-engagement-framework

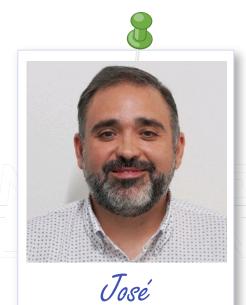


"Nothing About Us, Without Us!"









## All team

Medical writers Graphic designers Human design facilitator Project managers Copywriter & SEO content writer and storyteller





## **What we offer**:

- Free, tailored guidance to help rare disease organizations access funding opportunities and develop strategic partnerships.
- Support in navigating EU and national funding calls, building strong consortia, and preparing professional applications.
- Advice on sustainable growth, collaboration best practices, and effective engagement with industry, researchers, and policymakers.

# 🔯 How It Works:

- Each selected organization will receive up to 6 hours of dedicated pro bono consulting over a period of 2 months.
- Sessions are flexible and delivered online (via Zoom/Teams), scheduled based on your availability.
- Support can include:
  - Identifying suitable funding opportunities
  - Reviewing or co-developing parts of a funding application
  - Guidance on partnership building and consortium strategies
  - Providing templates (MoUs, partnership agreements, etc.)
  - Answering specific questions about project management, sustainability or professionalization

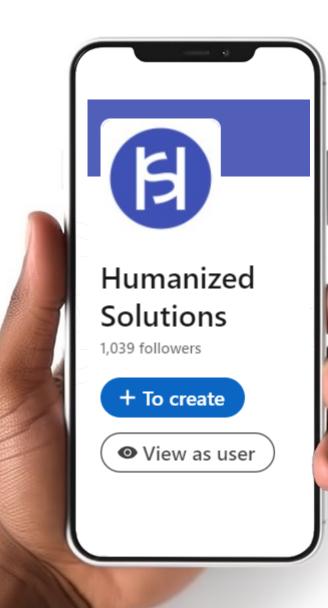
## Bridge for Rare: Pro Bono Support to Navigate Funding & Partnerships





Website: <a href="https://humanizedsolutions.com/">https://humanizedsolutions.com/</a>





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