

XVII Encuentro de Cooperación Farma-Biotech

AP-1, a remyelinating small molecule drug for the oral treatment of multiple sclerosis.



Madrid, 28 de noviembre de 2018

Content

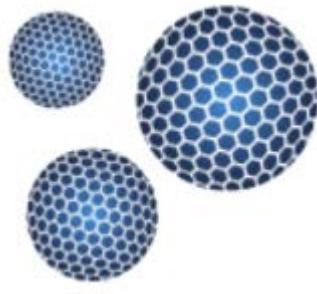
1. The Institution

2. The Product

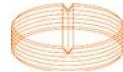
- a) Target Indications
- b) Innovative mechanisms of action
- c) Differential features facing the market
- d) Current status of development
- e) IPR protection
- f) Pitfalls & Risks to be considered

3. Partnering Opportunities





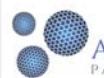
The Company



MEDICAMENTOS INNOVADORES
Plataforma Tecnológica Española



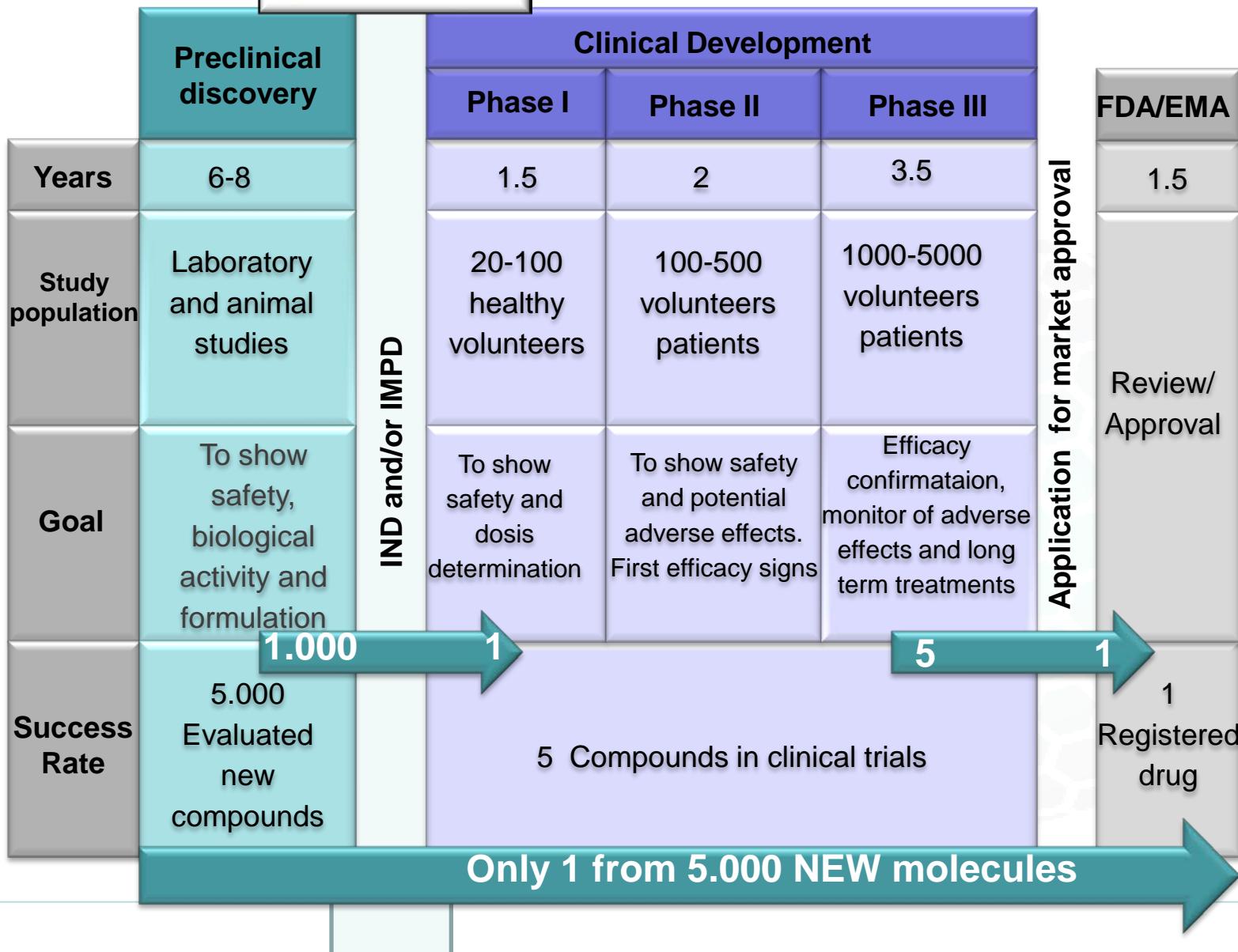
Gap to be cover



ANKAR PHARMA
PASSION FOR HEALING

spin-off

CSIC
CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS



Multidisciplinar team

Science



Scientific advisor, founder

Ana Martínez, PhD

Inventor AP-1

Research Professor CSIC

Management



Legal advisor, founder

Michael Jose, PhD

Extensive experience in start-ups

Alliances and Business Strategy



Scientific advisor, founder

Carmen Gil, PhD Co-

Inventor AP-1

Scientific Researcher CSIC

Investment advisor, board of directors

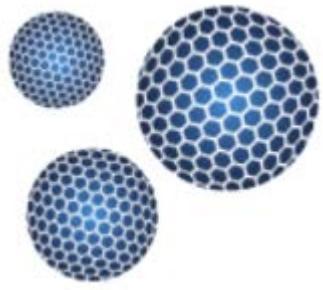
Diego Fernandez, PhD



**FUNDACIÓN
GAEM**
MS Research

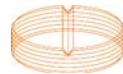
Grupo de Afectados de Esclerosis Múltiple





The Product

AP-1, a disruptive solution for MS



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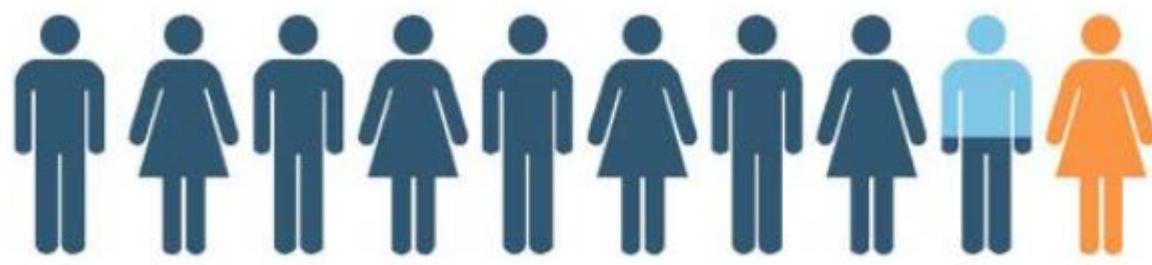


.....a market that grows the 7% annually.....

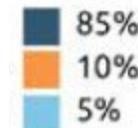


> 2.500.000 M patients¹
0,1 % worldwide incidence

Young adults Onset age: 20-40 years



Relapsing-remitting
Primary progressive
Secondary progressive



Current market²
> 15.000.000 M €

NO effective treatment
ONLY palliative treatments

Unsolved problem

Competitors (immunomodulators)

- 3 oral brands



- 5 injectable interferon beta brands



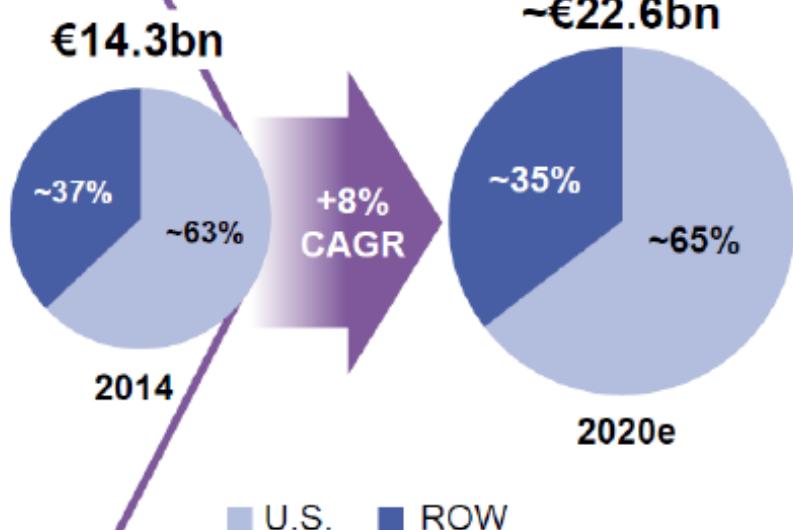
- 2 injectable glatiramer acetate brands including a generic



- 2 intravenous biologic drugs



Multiple Sclerosis Market Global Sales⁽¹⁾

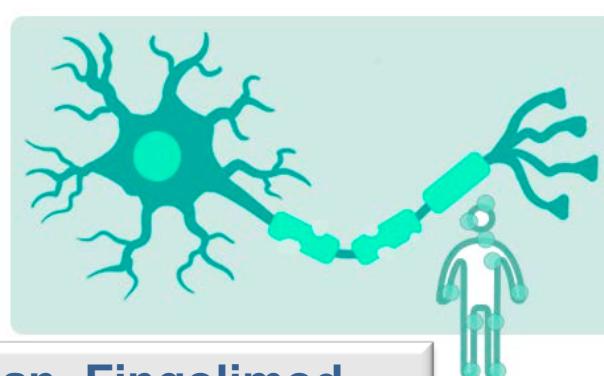


Market opportunity

-  Small molecule
-  Oral administration
-  Inmunomodulator
(inflammation decrease)
-  Neuroprotective agent
(neuronal death decrease)



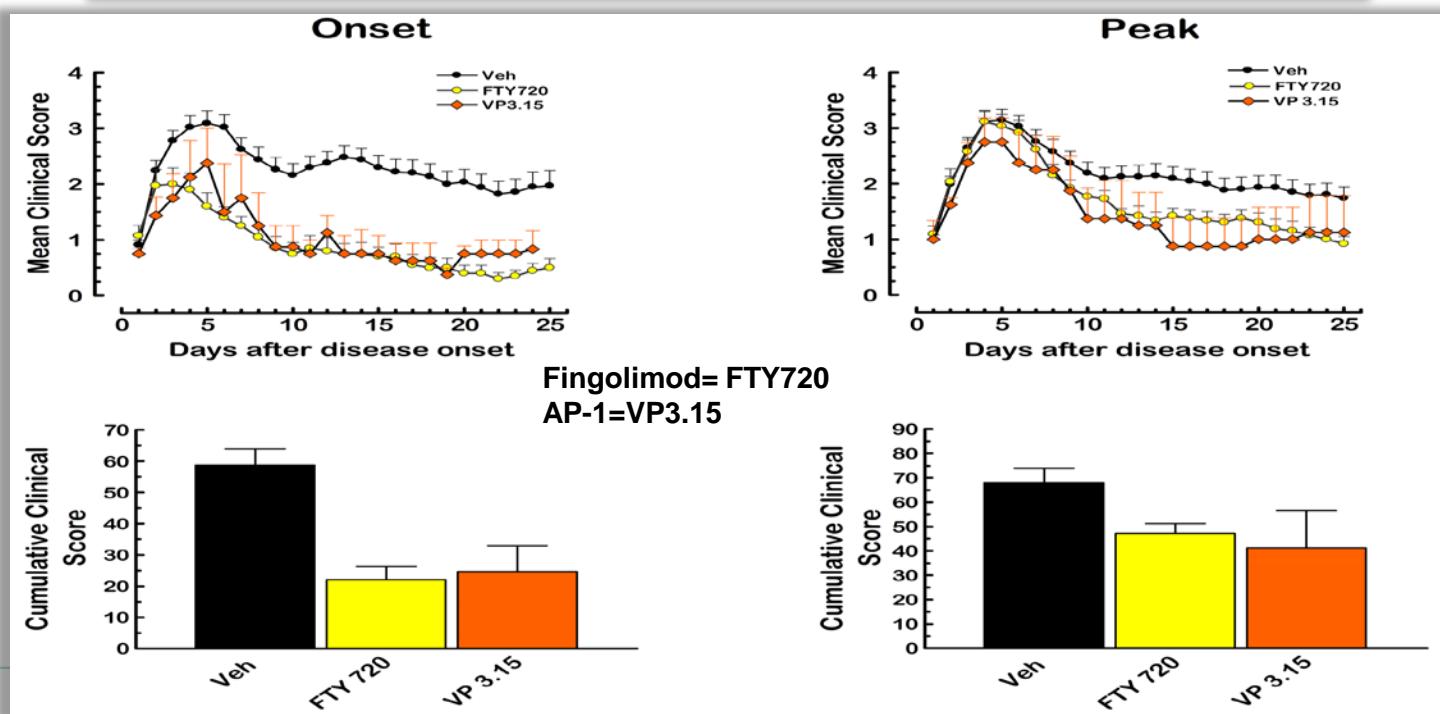
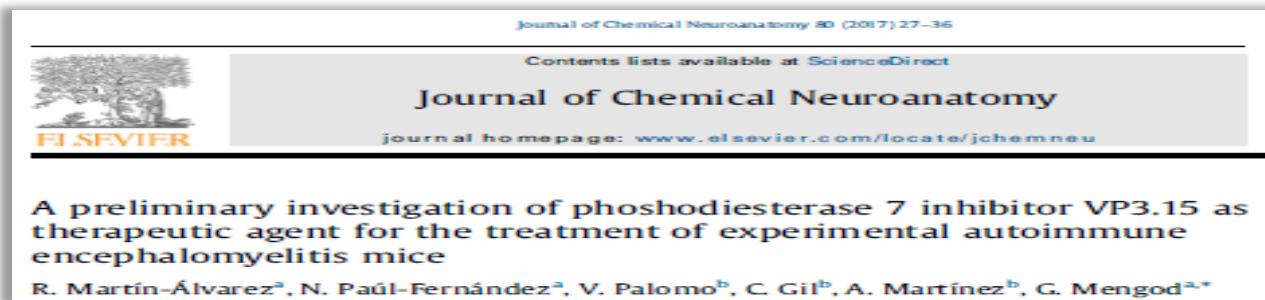
Remyelination
(OPC increase)



In preclinical models, BETTER than Fingolimod.



AP-1: a reality in ANKAR PHARMA



AP-1: a reality in ANKAR PHARMA



www.nature.com/scientificreports/

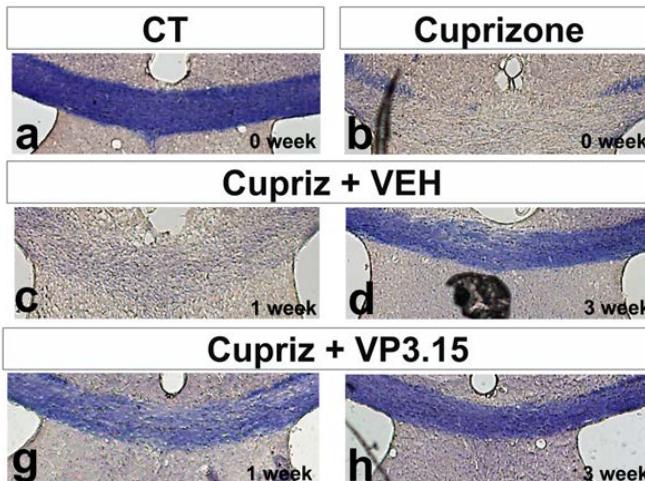
SCIENTIFIC REPORTS

OPEN

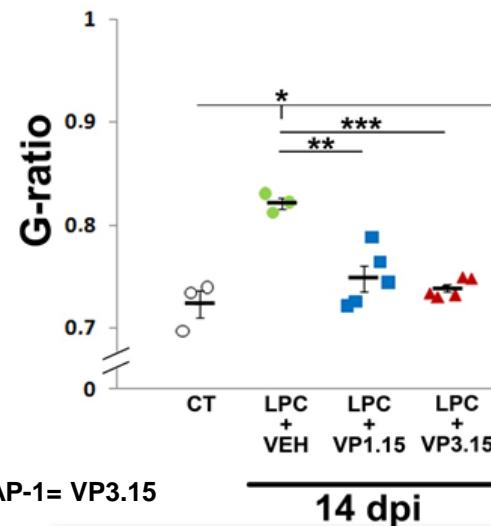
Received: 26 September 2016
 Accepted: 25 January 2017
 Published: 03 March 2017

Promoting *in vivo* remyelination with small molecules: a neuroreparative pharmacological treatment for Multiple Sclerosis

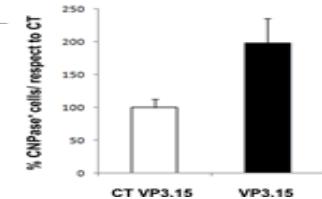
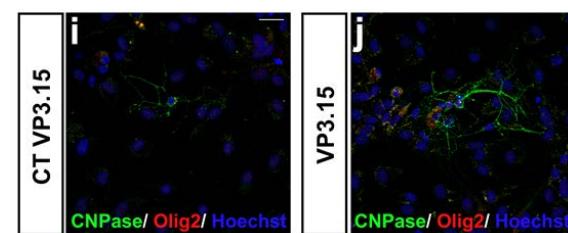
Eva María Medina-Rodríguez¹, Ana Briñán^{1,2}, Amanda Boyd³, Valle Palomo⁴, Jesús Pastor⁵, Alfonso Lagares⁶, Carmen Gil⁶, Ana Martínez⁷, Anna Williams¹ & Fernando de Castro^{1,2}



AP-1 favors *in vivo* remyelination
 (cuprizone model)



AP-1 increases myelin thickness in the repair phase in the LPC demyelination model *in vivo*



AP-1 is able to promote human OPC differentiation without affecting proliferation

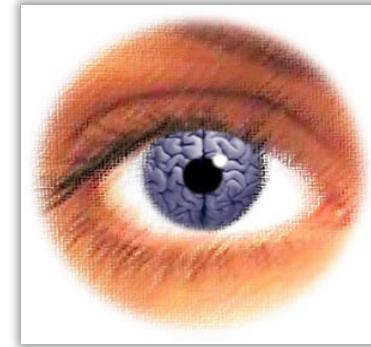
AP-1: working for the future



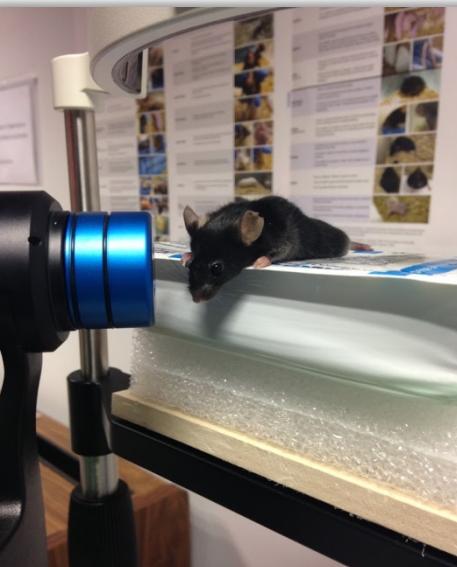
Remyelination: End-points for clinical phase II



Eye as a window to the brain

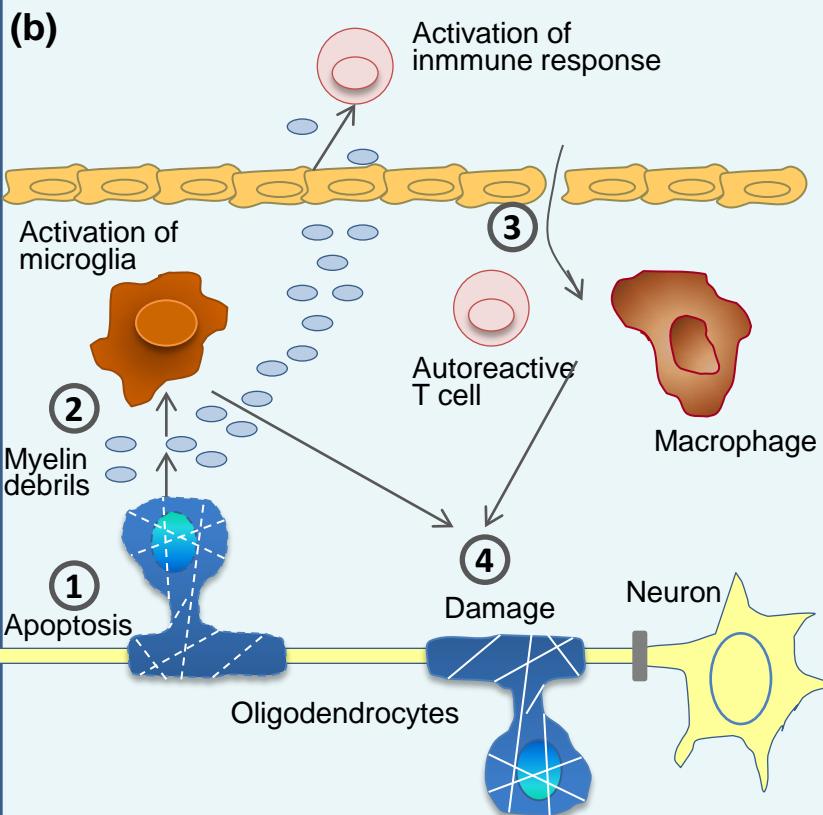
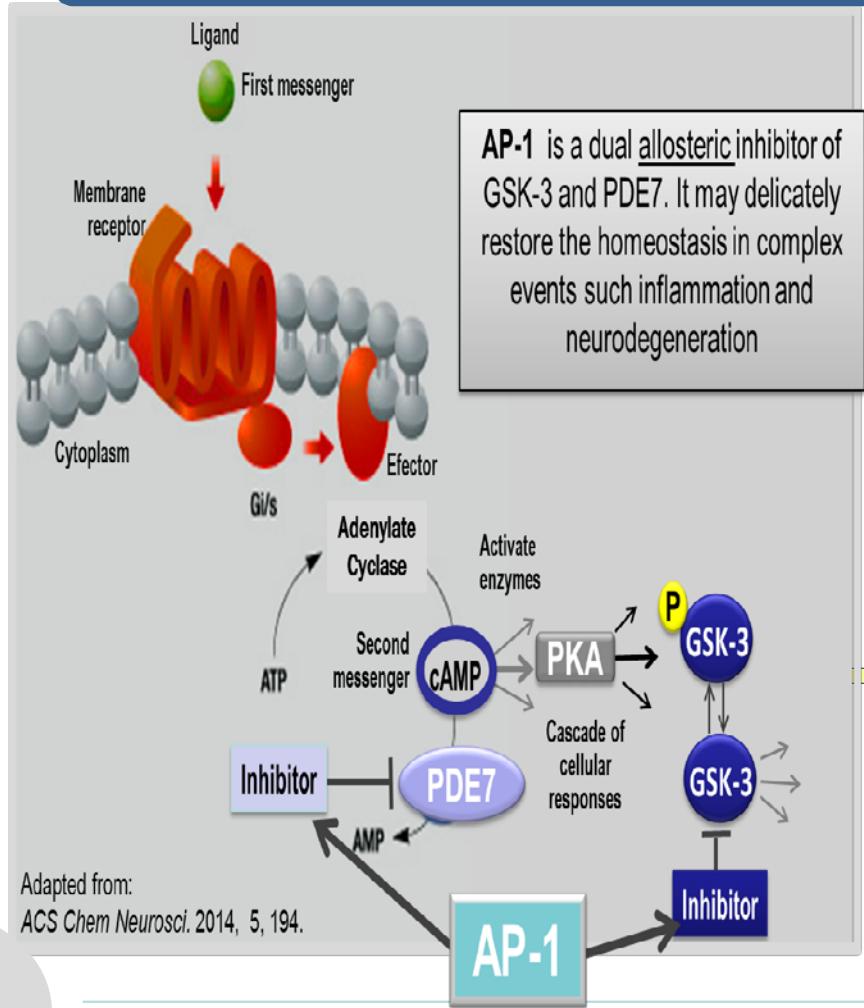


OCT (optic coherence tomography) to measure remyelination



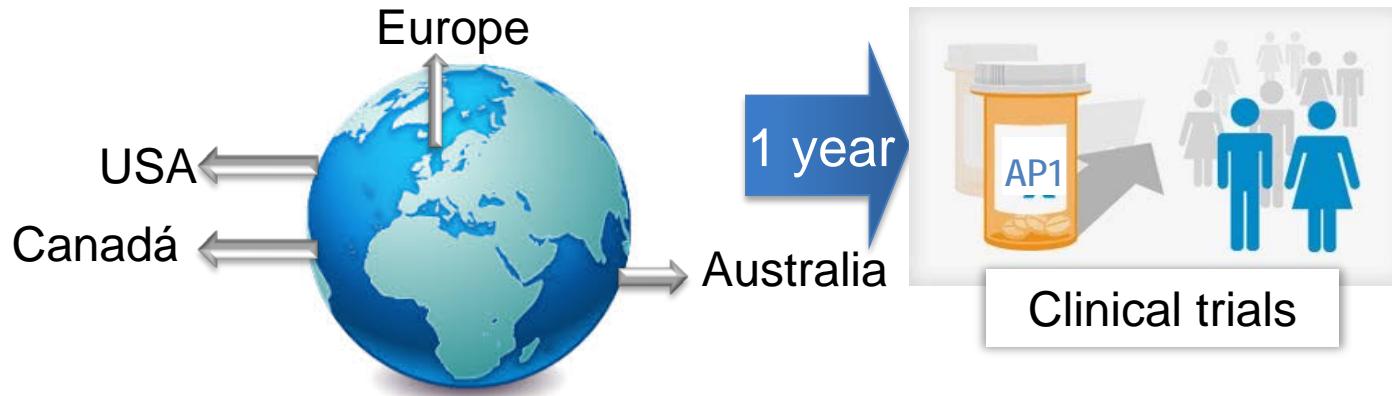


AP-1 has an innovative mechanism of action



Multiple sclerosis:
Neurodegenerative
disease

AP-1 has a granted compound patent



International advisory board

Professor of Regenerative Neurology
Consultant Neurologist



MRC | Centre for
Regenerative
Medicine

Head of Neurology
Consultant Neurologist

biodonostia

osasun ikerketa institutua
Instituto de Investigación Sanitaria

Research Professor



CSIC
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Senior Preclinical advisor
(vast experience in CROs)

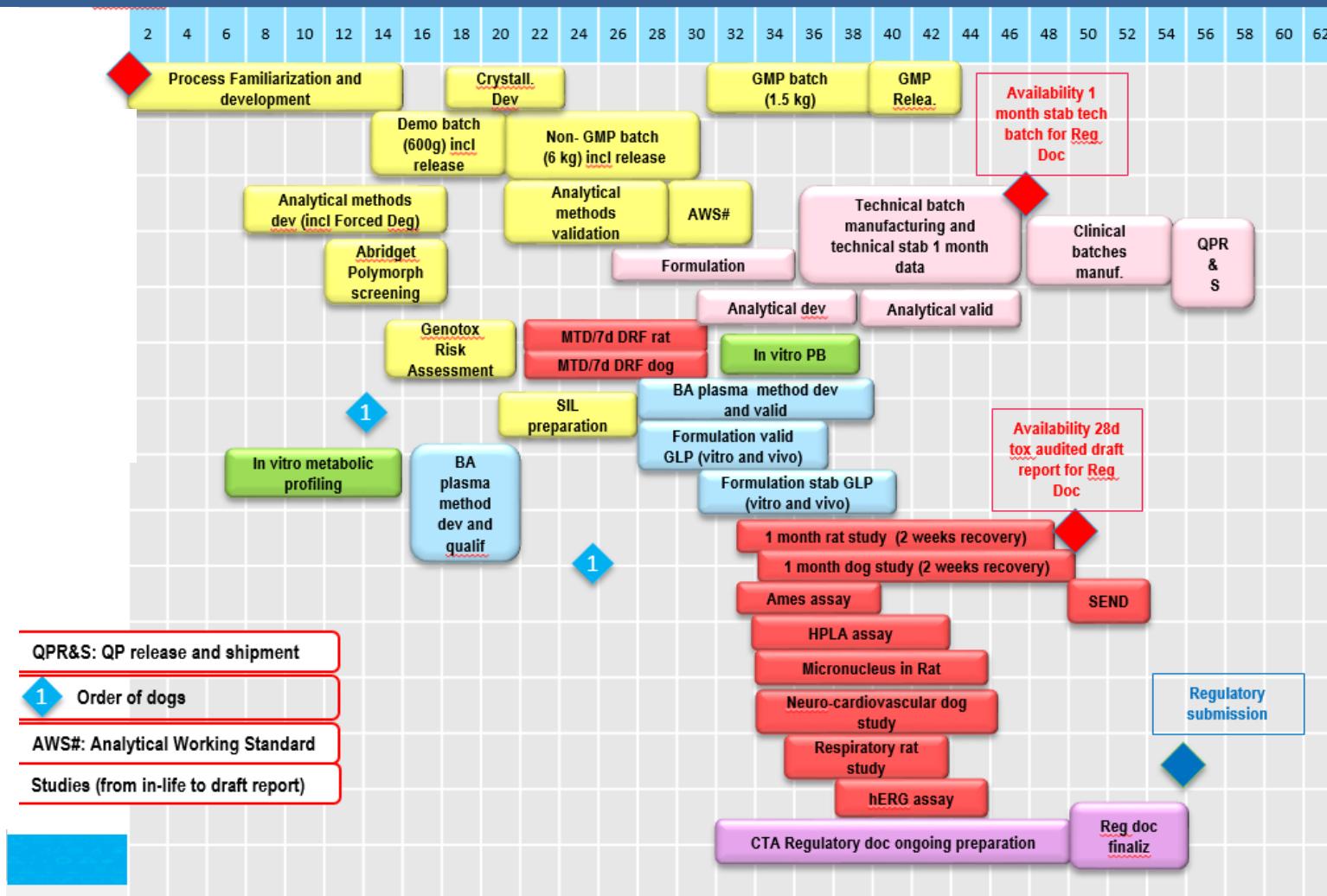
harlan®

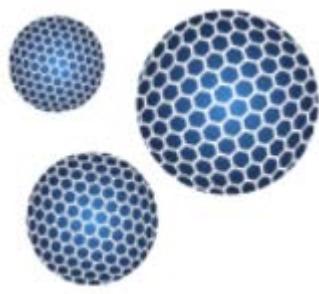
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RTC
Pharmaceutical
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Huntingdon
Life Sciences
Working for a better future

AP-1 development plan



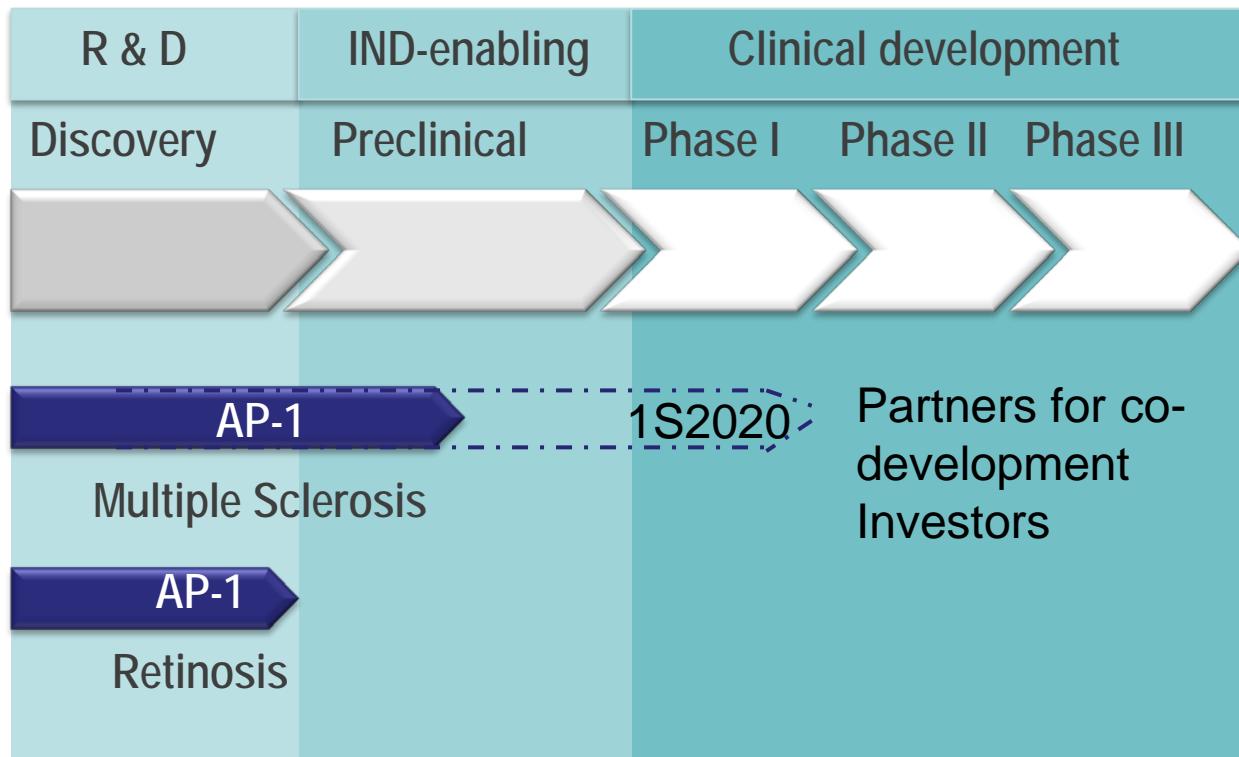


Partnering Opportunities



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Plataforma Tecnológica Española





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