23 de octubre de 2024

Anti-BAMBI mAb: Towards a new novel disruptive therapy in psoriasis and psoriatic arthritis



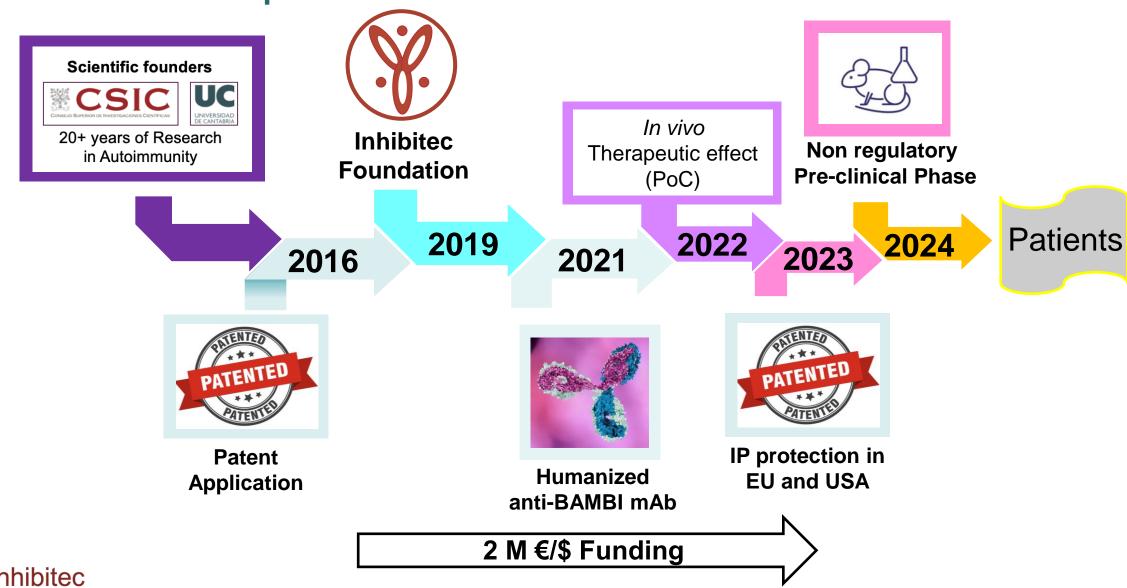
Ramón Merino, MD, PhD Scientific advisor & co-founder





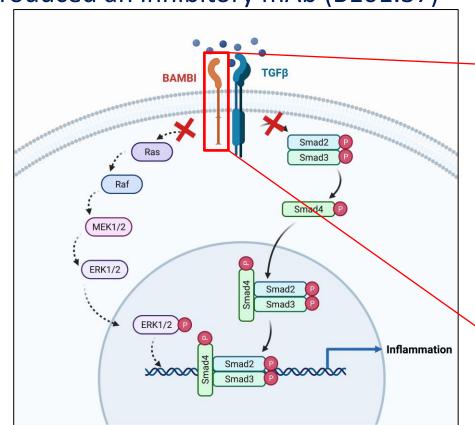


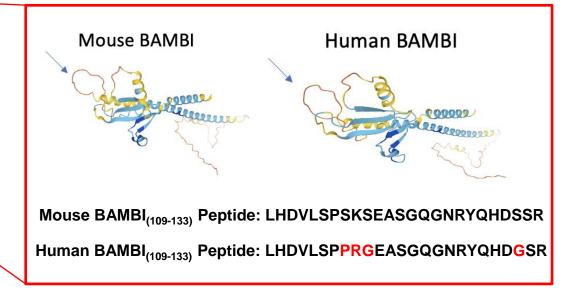
Inhibitec Anticuerpos SL



Our product: anti-BAMBI mAb (B101.37)

Inhibitec has identified **BAMBI** as a key molecule during PsA development and produced an inhibitory mAb (B101.37)





Anti-BAMBI mAb (IgG1) recognizes both murine and human BAMBI

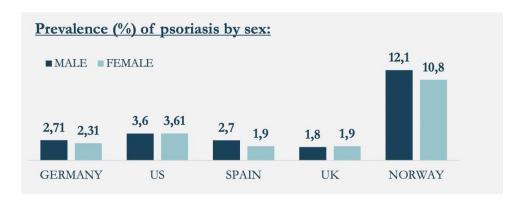


Target indications

Psoriasis is an autoimmune disease of the skin that affects about 2% of the global population (≈ 160 million of patients). According to WHO: Chronic, noncommunicable, painful, disfiguring and disabling with **no cure.**

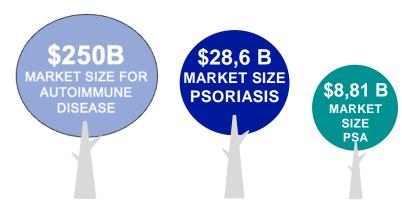








30% of patients with psoriasis will develop **Psoriatic Arthritis** (**PsA**)



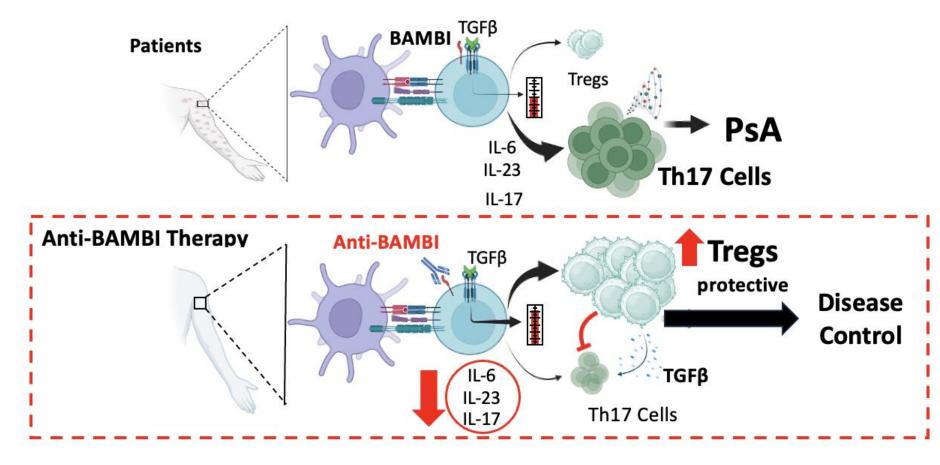
Higher economic burden when including **comorbidities** (30-194% increase).

Prevalence rise. It will double in the next 5 years.



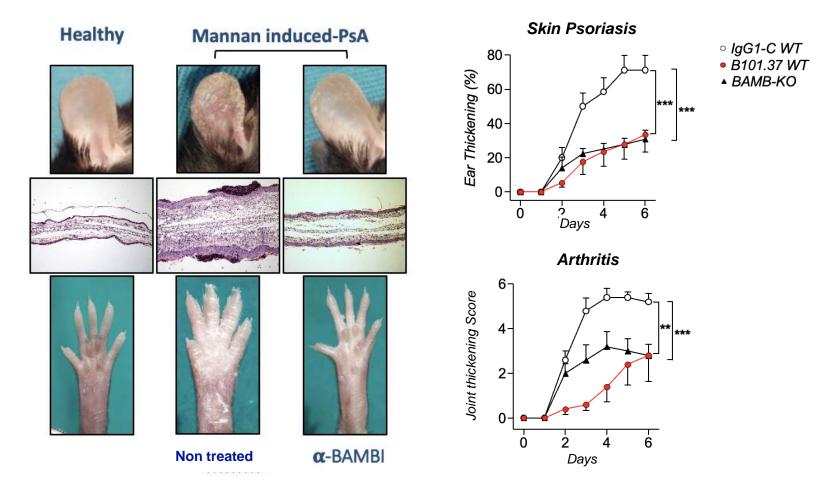
Innovative mechanims of action

<u> α -Bambi</u> treatment has double effect on psoriasis and PsA: It **enhances Treg** differenciation **AND inhibits pro-inflammatory cells.**





Innovative mechanims of action



Inhibiting BAMBI prevents skin lesions and joint thickening during PsA progression



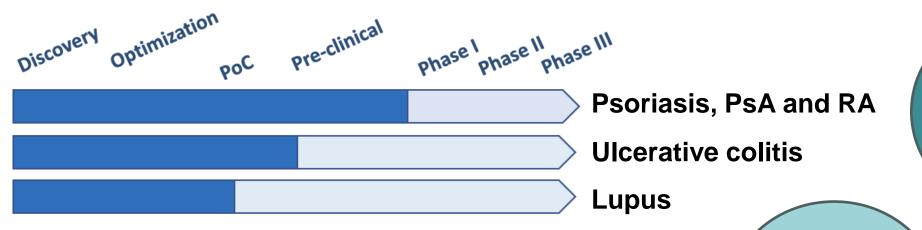
IPR protection

- Anti-BAMBI mAb has been protected by an International Patent filed in November 2015 'Anticuerpos monoclonales frente a BAMBI y uso para tratamiento de enfermedades inflamatorias' (EU ref number EP3385282; US patent ref 11,518,802) and it is valid to 2035 (+5-year extension)
- > Ownership is evenly split between the Spanish National Research Council (CSIC) (50%) and the University of Cantabria (UC) (50%), with a co-ownership agreement fully executed.
- > Our patent covers the therapeutic applications of psoriasis, psoriatic arthritis, rheumatoid arthritis, systemic lupus erythematosus (SLE) and IBDs such as ulcerative colitis.
- Inhibitec is proactively pursuing a robust and ambitious plan to strengthen and extend our intellectual property portfolio, potentially resulting in a new patent of the humanized anti-BAMBI mAb.



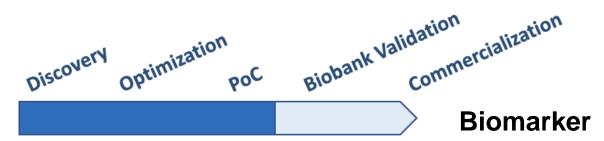
Target indications: complete portfolio

Therapeutic applications



\$3.3 B
Lupus market

Diagnostic applications







Current status of development Commercialization We are here Phase II) Phase III **Humanization Discovery Pre-clinical studies** Phase I 🕽 MOA PoC GMP Toxicity License-out **Co-development New patent Big Pharmas Best variant** Most efficient dose **Pharmacokinetics** Administration route Comparative studies Non-invasive read-out molecule Combined treatment studies Humanized antibody optimization **Pilot toxicology in rodents**

hibitec

Differentiation

Competitors today
Partners tomorrow

•	COMPANY	Several companies Abbvie	Novartis Lilly Leo Pharma UBC	Janssen Almirall Janssen	Inhibitec
	NAME	Adalimumab	Secukimumab Ixekizumab Brodalumab Bimekizumab	Ustekinumab Tildrakizumab Guselkumab	Anti-BAMBI
	TARGET	TNFa	IL-17A IL-17RA IL17A/IL17F	anti-IL-23p40 IL-23p19	вамві

Options in the market	Multiple	Multiple	Multiple	Only Inhibitec
Patent lifespan	Biosimilars	Close to expire	Close to expire	Newer
Dual cellular effect	-	-	-	✓
Effect on psoriasis	+++	+++	+++	++++
Effect on PsA	++	++	++	++++



Pitfalls & Risk

<u>Comparative therapeutic effects:</u> Treatment with hB101.37 mAb does not improve the therapeutic landscape in these pathologies.

➤ hB101.37 therapy has broader therapeutic effects than anti-IL-17 mAbs in psoriasis models.

<u>Toxicity:</u> The pre-clinical roadmap for hB101.37 mAb will be interrupted in the case of severe side effects to its treatment.

- No toxicity in both acute and chronic administration regimens.
- > No profibrotic side effects in experimental models of lung, heart, liver, and skin fibrosis
- > No haemorrhagic side effects.

<u>Stable cell line production</u>: Producing the hB101.37 mAb by the stable cell line may suffer modifications that affect their therapeutic effect or have a large-scale failure that compromise the productivity.

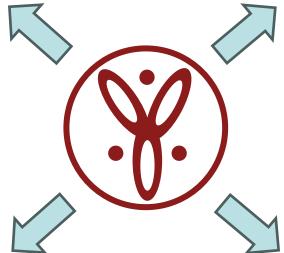
➤ A comprehensive sequence analysis of hB101.37 performed to enhance stability and efficiency during cell line production.

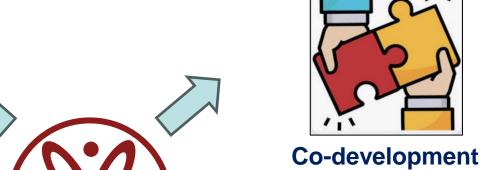


Partnering opportunities



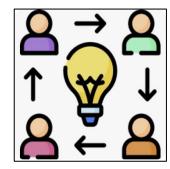
Investment











Research collaborations

