

# First Preventive Treatment for all Peripheral Neuropathies

*'...the findings are truly impressive. I am convinced that Carba1 holds significant promise as an innovative solution'*  
Pr Ahmet Höke, PhD, MD, Johns Hopkins Medicine, Department of Neurology (MD)

A French biotech startup at a pre-clinical stage developing the First preventive treatment applying to all peripheral neuropathies causes

Based on its proprietary & protected breakthrough therapy

Addressing a global Recognized Unmet Medical Need

For all patients suffering from a lack of protection of the nerve fibers





# Team

## Founders & Executive Team



**Philippe Bordeau, MSc**  
Saxol CEO  
Founder of several Biotechs  
Strategy, IP, Collaborations,  
Financing skills including non  
dilutive multiple financing  
20 M€ on 40 M€ for Alaxia



**Laurence Lafanechère, PhD,**  
Saxol Scientific adviser  
CNRS Director of Research  
IAB deputy director  
Carba1 Inventor  
Member of Ruban rose Scientific  
Committee , +80 publications



**Victor Juarez Perez, PhD, MBA**  
Saxol CSO/COO  
Team Leader of several pharma  
complex programs (ALX-009,  
STR-324...).  
Scientific and regulatory strategy,  
interactions with FDA/EMA.  
+20 articles in peer-review journals



**Lauriane Bosc, MSc**  
Saxol Preclinical Manager  
Study engineer on several  
FUI projects  
3y working on Saxol project



**Paul Claudon, Ing, PhD**  
Saxol CMC support  
Medicinal chemist  
managing drug  
manufacturing, analytics  
and quality aspects

## Scientific & Medical advisory board



**Ahmet Hoke, MD, PhD**  
Pr Neurology Johns Hopkins,  
Head Neuromuscular Division  
Editor in chief *Experimental  
Neurology*, Annals of Clinical and  
Translational Neurology  
Author of 174 publications



**Annie Claude Benichou, MD**  
Methodologist, Former QPPV  
and Medical Director of  
Stragen group  
CMO of several drug dvpt  
program (OMA, STR-324,...)



**Jesus Garcia-Foncillas MD PhD**  
Pr Oncology, Madrid University  
Dr Cancer Institute  
Dr Oncohealth Institute  
Dr Oncology Dpt at FJD Univ.  
Hosp.  
Dr Translational Oncology  
Research Institute FJD  
Author of 220 publications and  
several books on cancer

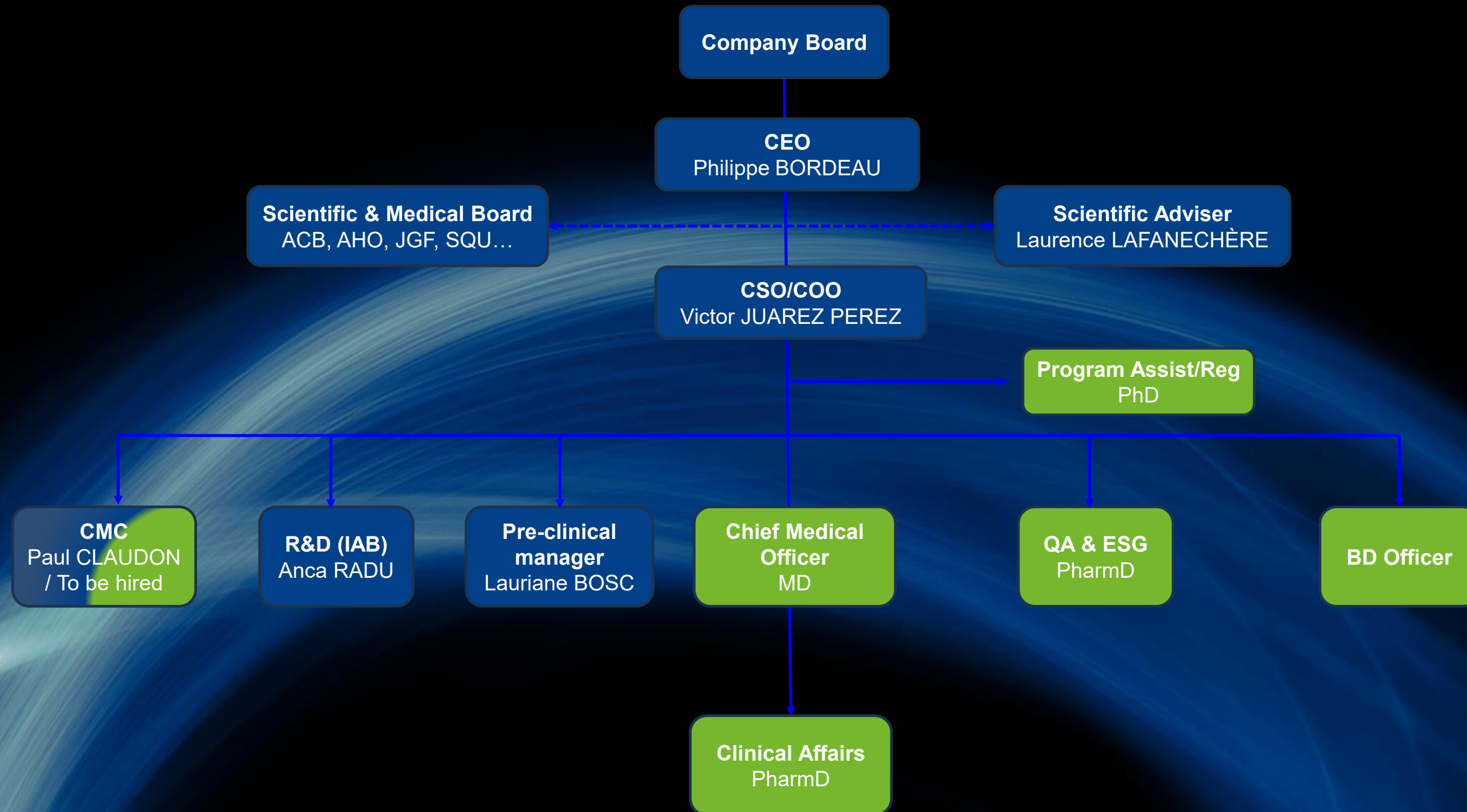


**Stanislas Quesada MD PhD**  
Oncologist,  
Focused Patient QoL  
ICM Montpellier  
Inserm Researcher  
Author of 60 publications



# Saxol Planned Organigram

To be  
hired



Recruitments according program progression

# Context: Peripheral Neuropathy (PN)

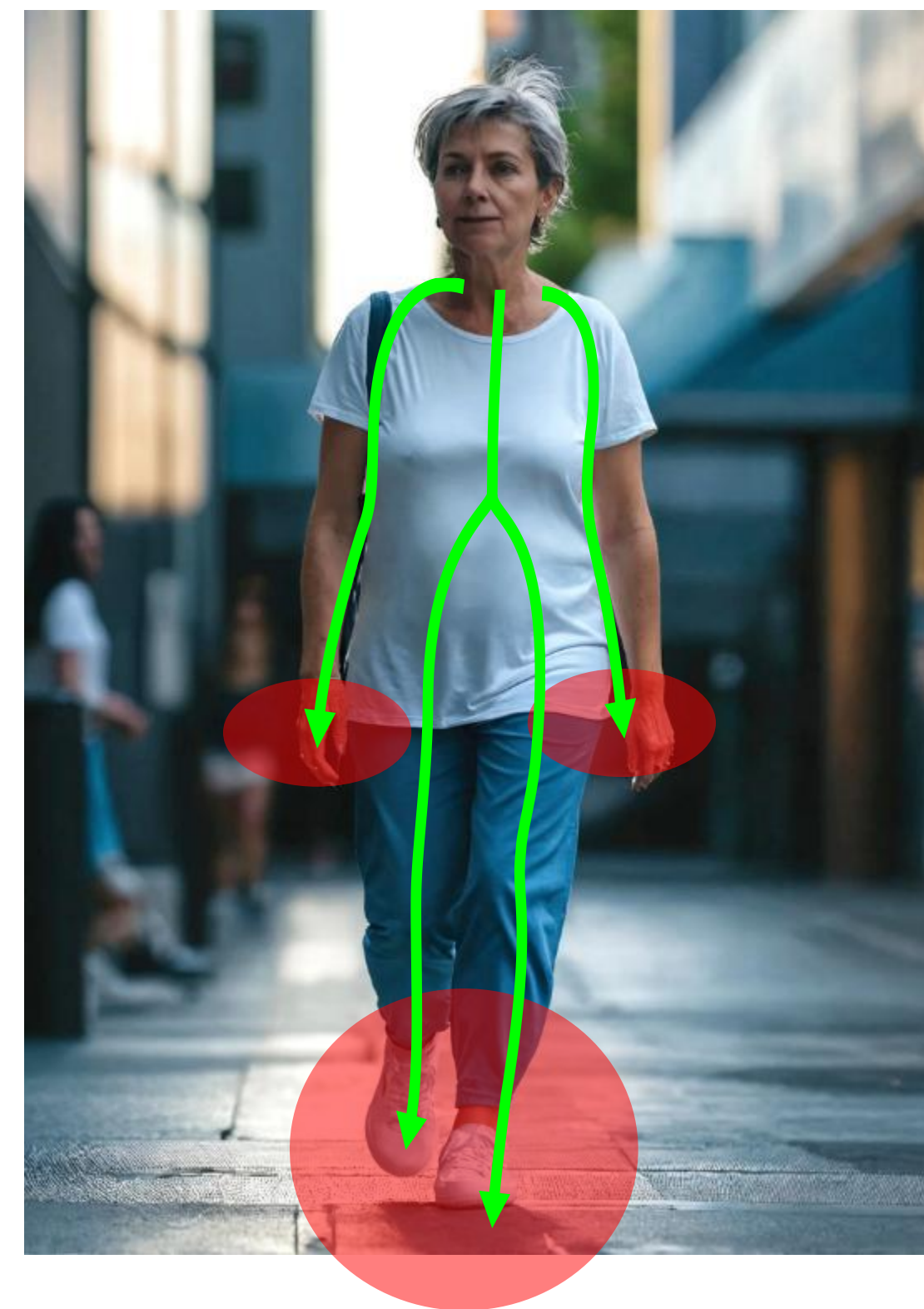
**PN, a disorder affecting peripheral nerves outside the brain and spinal cord**

## Nerve damage symptoms

- Sensitivity disorders
- Neuropathic Pain
- Muscles weakness
- Hearing loss
- Cognitive

## PN Impact on daily life

- Loss of balance and increased risk of fall
- Motor impairment
- Reduced quality of life
- Depression, anxiety and insomnia





# Problem: PN causes are not treated & multiple

- **Drug adverse side effects**

- Immunotherapies, Antibody Drug Conjugate (Emerging adverse event)
- Chemotherapies (Chemotherapy-Induced Peripheral Neuropathy - CIPN)
  - 10 Million/y patients treated worldwide (15 M in 2040)

- **Neurodegenerative diseases**

- Alzheimer, Parkinson, etc. - over 70 Million patients (WHO)

- **Metabolic**

- >530 Million diabetes patients in 2021 (> 700 Millions by 2040)
- Gangrene & amputation risks

- **Aging**

- 7-12% of general non-diabetic population
- Over 750 Million people worldwide >65yo

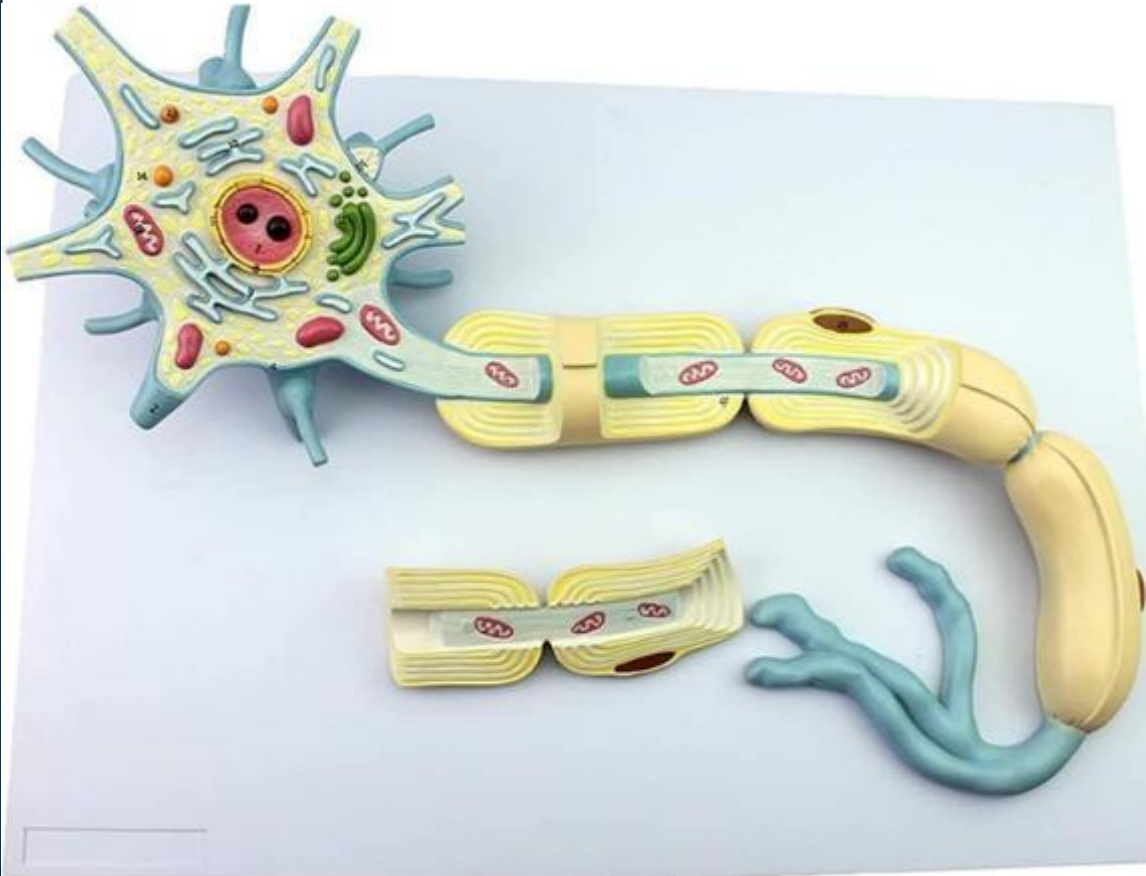
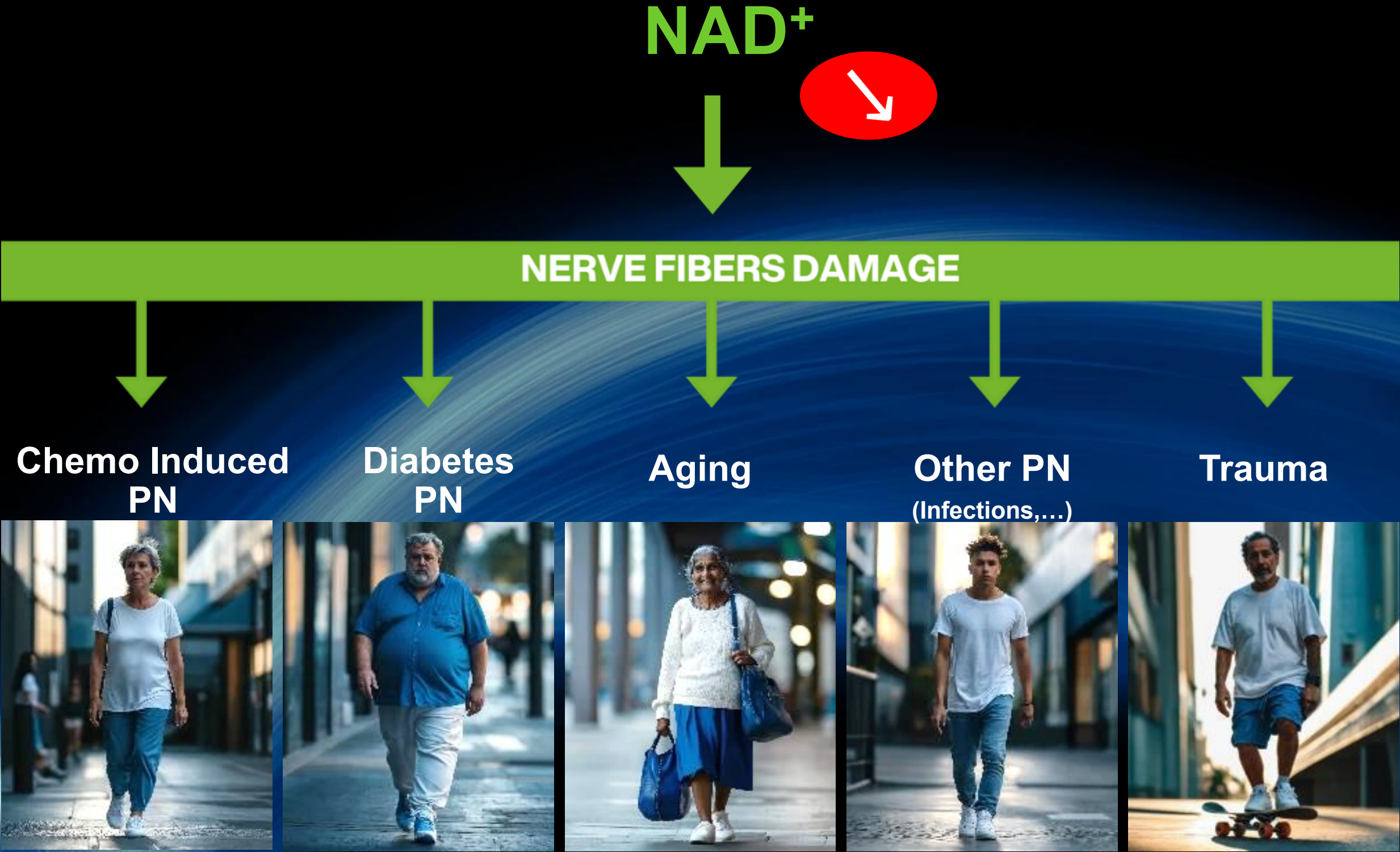
- **Trauma, Infections**

**Millions of patients  
with no therapeutic  
options**

**No preventing/curing  
treatment available for  
nerve fibers**



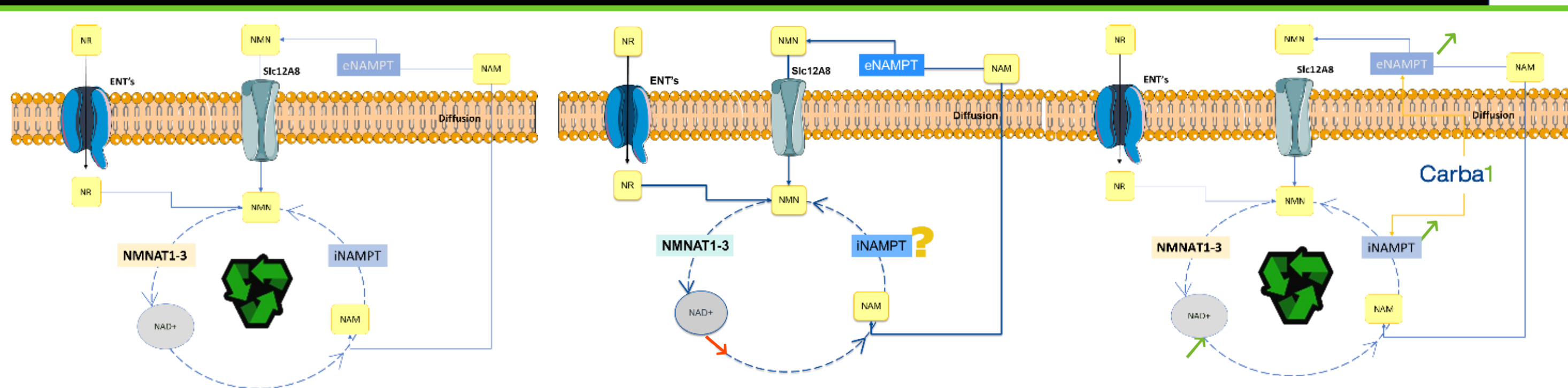
# One common cellular origin



*Nerve representation*

# Our solution: Carba1

## Carba1 NAMPT activator restores NAD<sup>+</sup> intracellular levels



Normal NAD<sup>+</sup> salvage pathway

In neuropathic conditions NAD<sup>+</sup> production is **impaired**

Carba1 **rescues** NAD<sup>+</sup> production by **regulation of NAMPT**

**NAD<sup>+</sup>**, nucleotide present in all living cells.

**NAD<sup>+</sup>**, cofactor & substrate for a multitude of essential processes including energy production, DNA repair,...

**NAMPT**, key enzyme producing NAD<sup>+</sup>

**Breakthrough  
therapeutic approach**

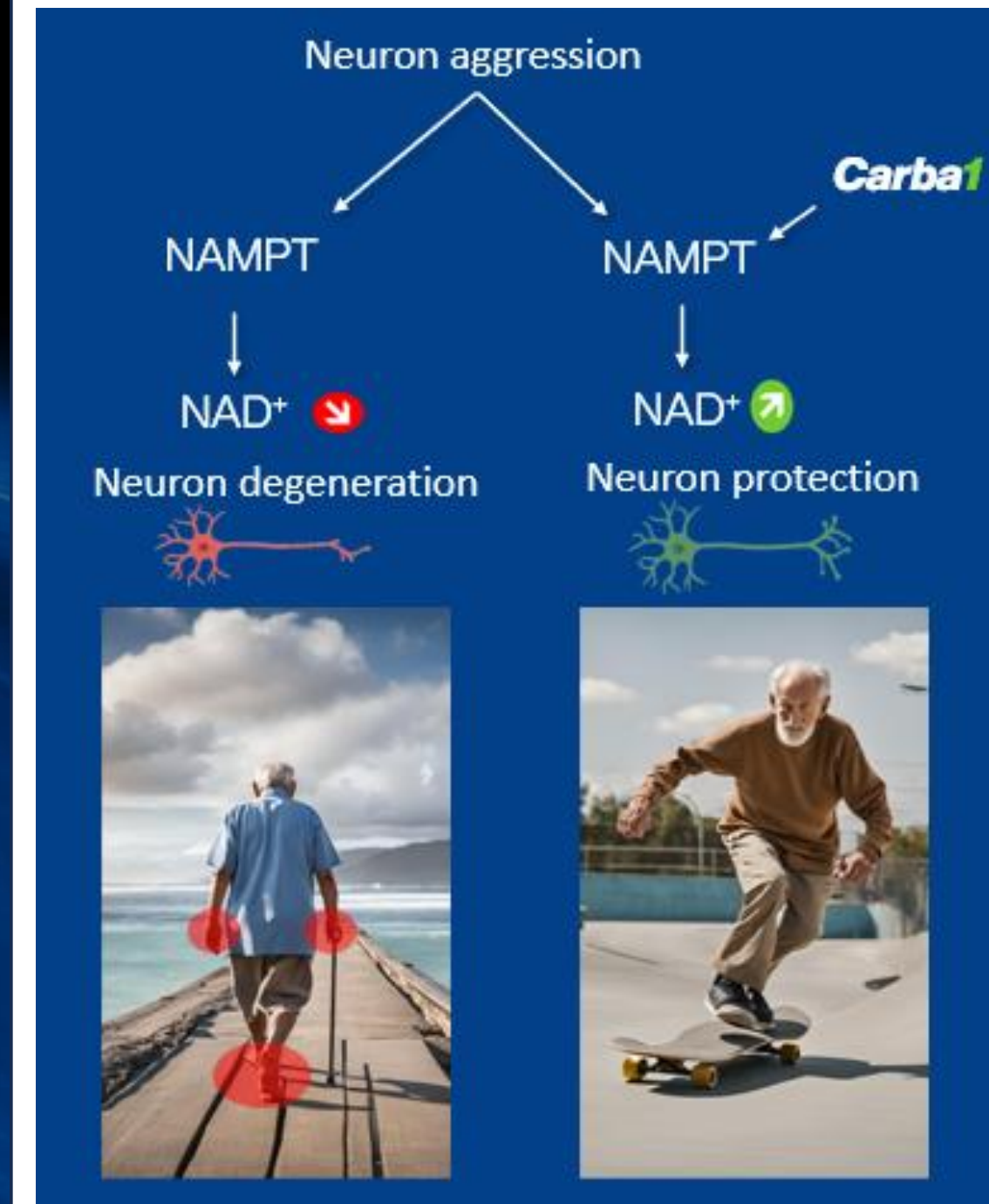
**Results: Strong evidence of effectiveness detailed in Annex**



# Saxol proposal : *CarbaS*, new class of **Drugs**

- **Carba1** - Lead and first product coming out pipeline
- Pipeline Patented & Free to Operate
- **Breakthrough therapeutic approach**
  - New in class
  - New MoA - NAMPT activator: NAD<sup>+</sup> restoration ↗
  - Protecting nerve fibers
- Derived from a Carbazole structure (MedChem)
- Other derivatives available

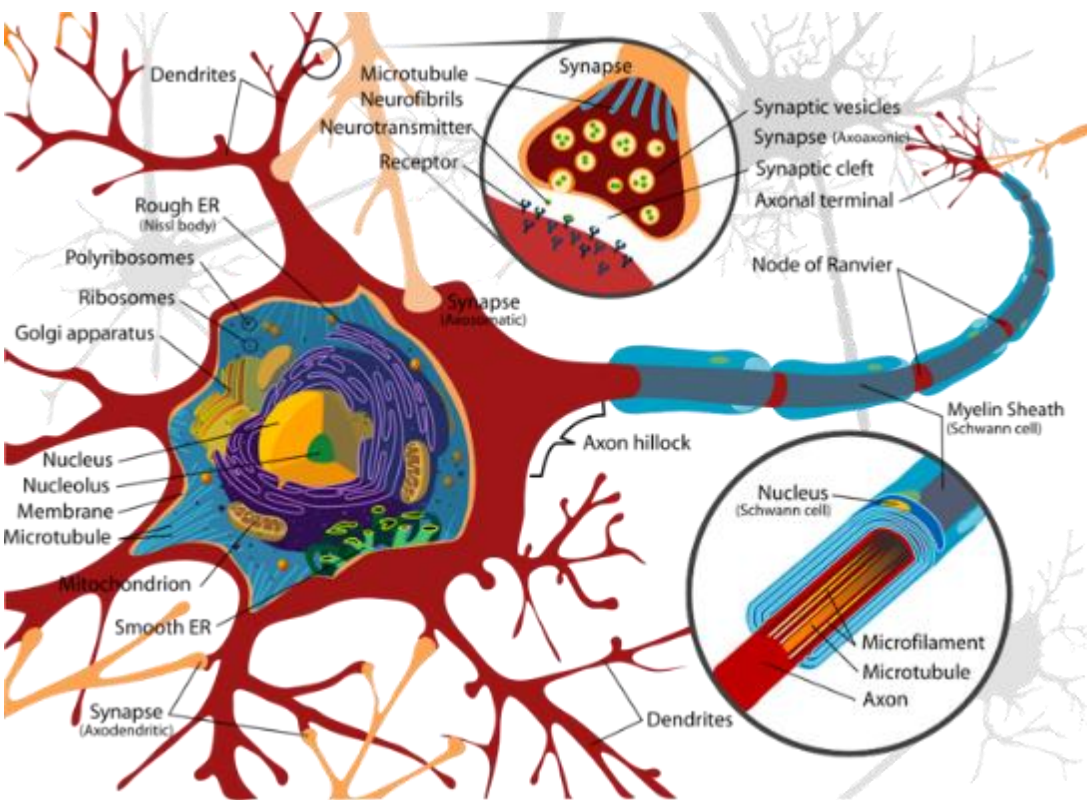
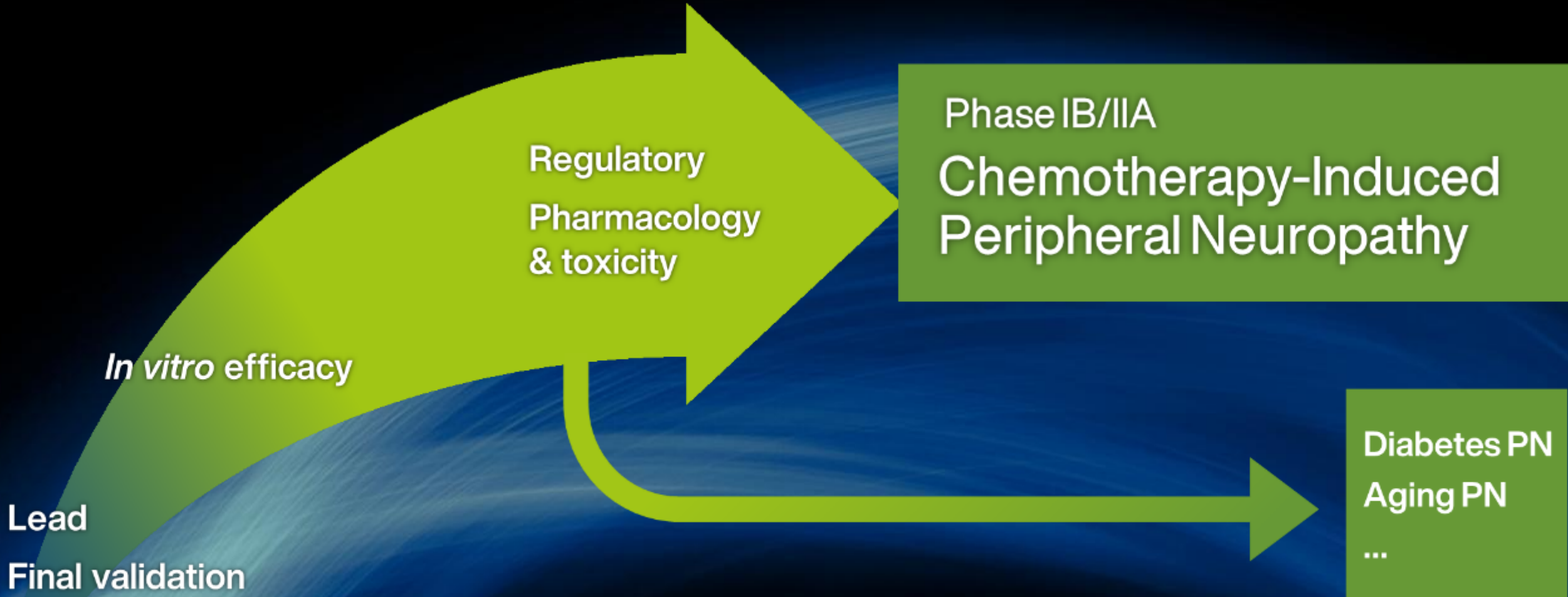
New class of drugs: **NAMPT activators**





# CIPN First indication to open

## CIPN indication, Fastest access to Phase IIA



Nerve cell & organization



# Chemotherapy-Induced Peripheral Neuropathy

- **A very common cancer treatment adverse event**

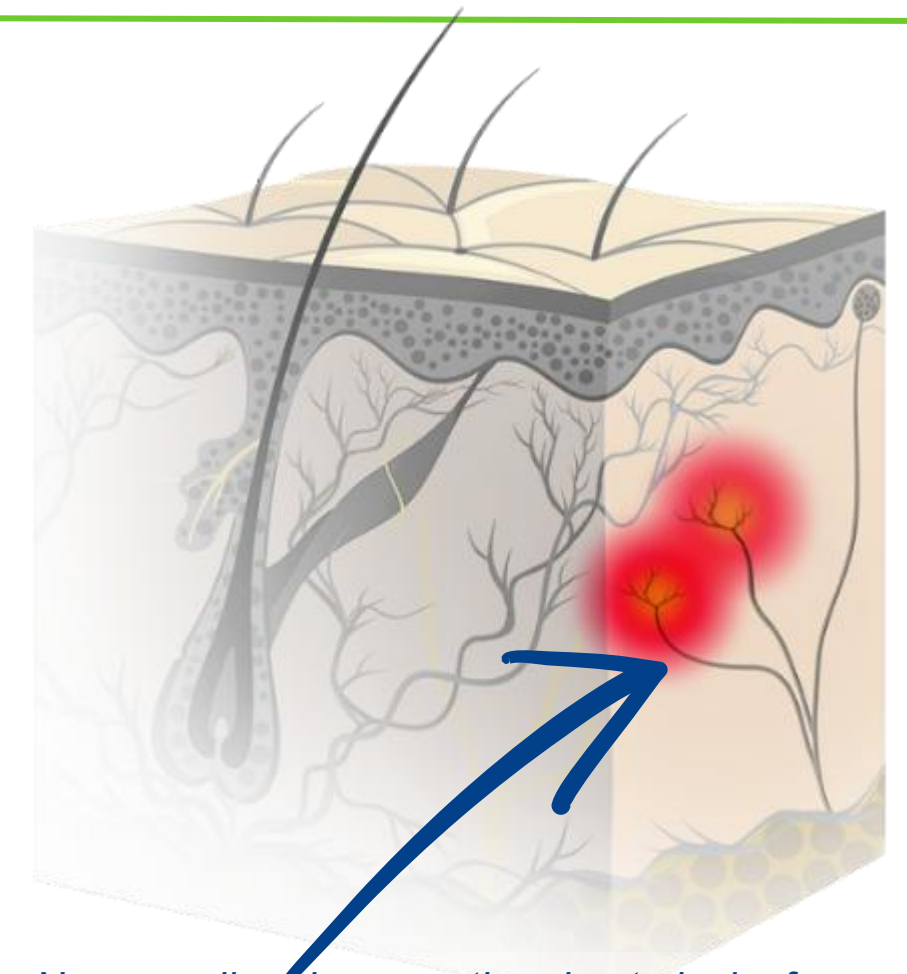
- Usual cause of **treatment interruption** or dose reduction
- **70%** of patients are affected after one month of treatment
- 30% of patients remain affected 6 months after ending treatment

- **Chemotherapy use in cancer treatment : > 50%\***

- 10 Million patients treated ww each year by chemo - 15 Million patients in 2040
- € 10+bn SAM in EU - 3.1 Million CIPN patients EU+US

\*Even by 2040 – IARC/WHO – Wilson B, The Lancet

- **No treatment preventing CIPN nor PN approved**



*Nerve ending degeneration due to lack of energy generated in mitochondria leads to chronic CIPN*

## Unmet Medical Need

FDA/EMA Special Programs

Breakthrough therapy,  
PRIME



# Competitive landscape for CIPN



Opioids

## > 60 Pain Killers

- ✗ Pain only
- ✗ Not addressing root cause
- ✗ Not preventing nor curing

## Anti-epileptics

- ✗ CNS side-effect
- ✗ Risk of respiratory issues
- ✗ Poor efficacy

## Anti-depressants

- ✗ Long timeframe for "efficacy"
- ✗ Cognitive impairment
- ✗ Poor efficacy





Palliative approaches  
**No Nerve Fibers Protection**



**Preventing Therapies  
CIPN early-stage dvpt**

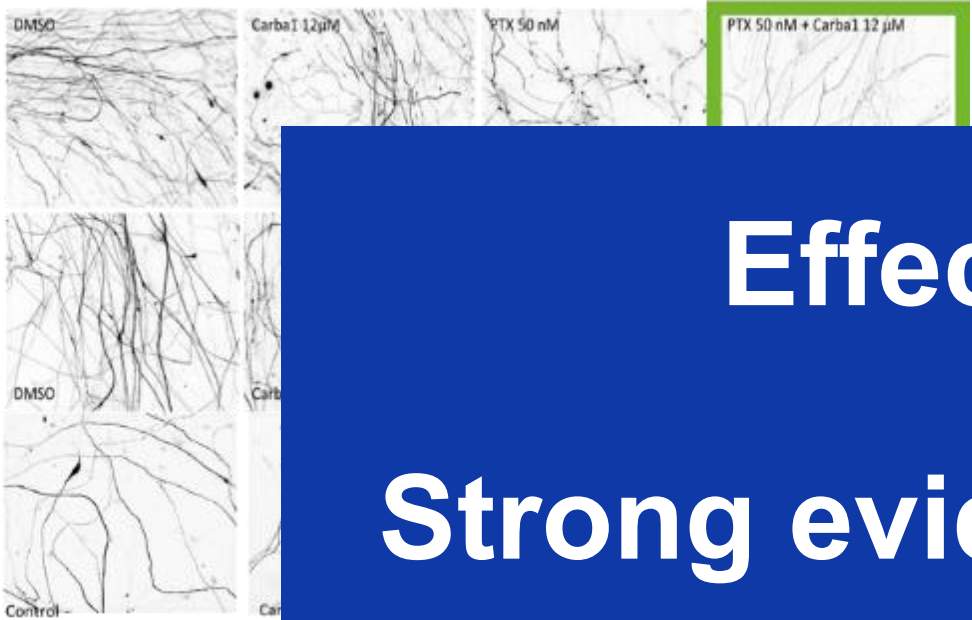
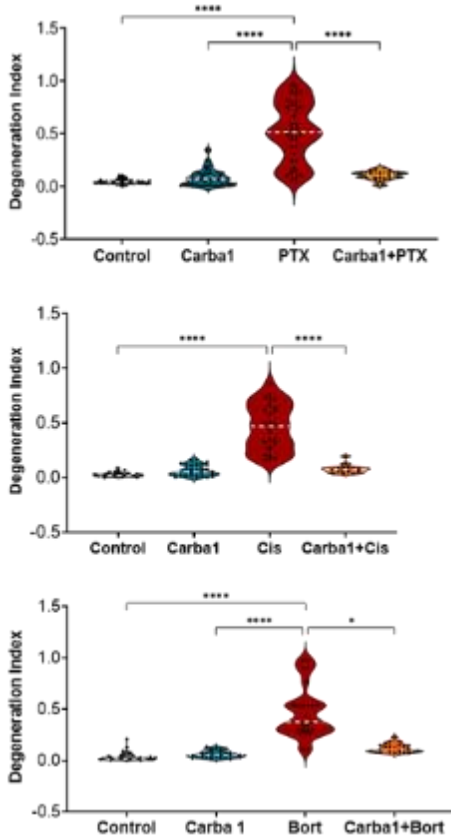


# Competitors in CIPN

	Indications	Production costs	Development stage	Risks
	All PN CIPN 1 <sup>st</sup> indication	Low	Preclinic	No IP risk Low tox risk
	CIPN Only one indication to be considered (taxane only)	Low, Camcolit® repositioning	Phase I	High risk counterfeiting
 	CIPN & Diabetes PN India	High, Biotherapy	Phase II	IL-6 can induce significant adverse effects

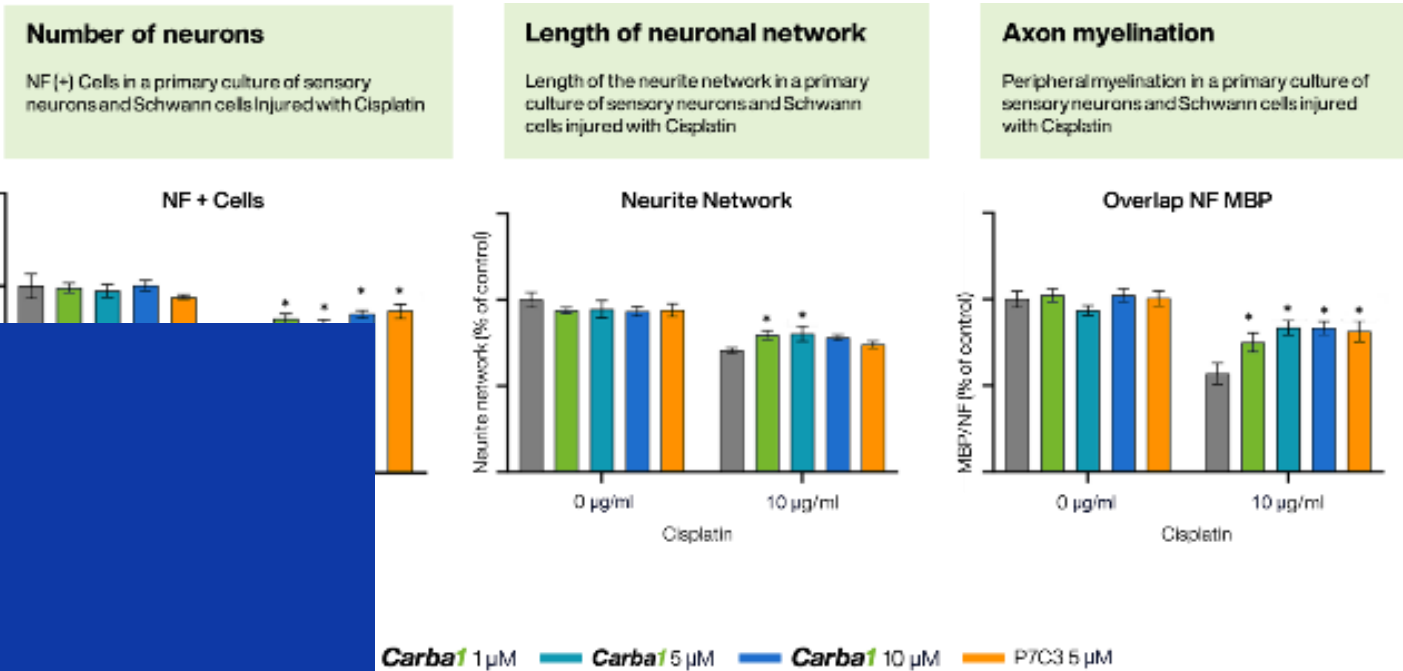
# Effectiveness - Strong evidence available

## Carba1 In vitro Neuroprotection

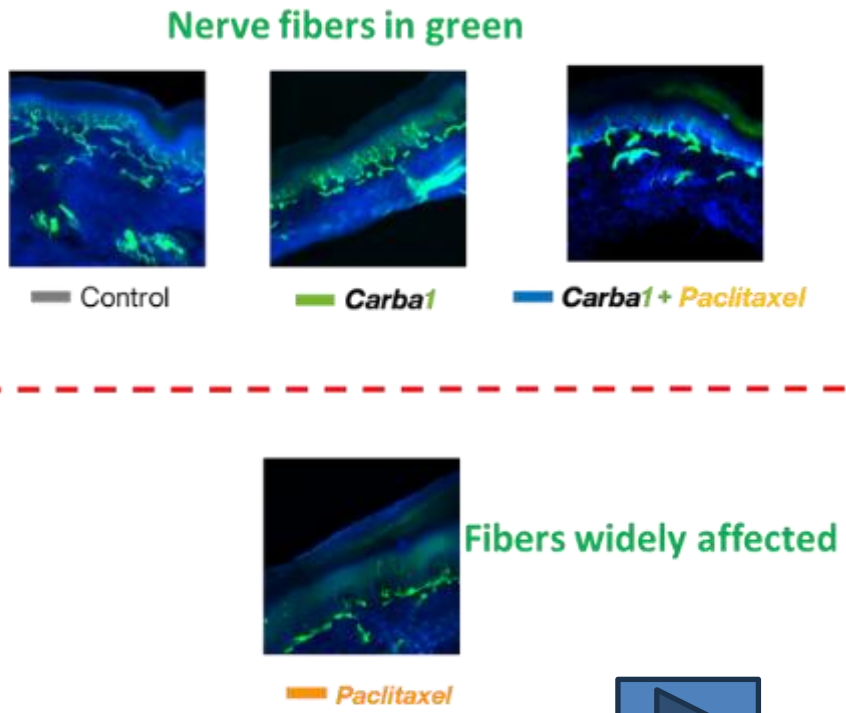
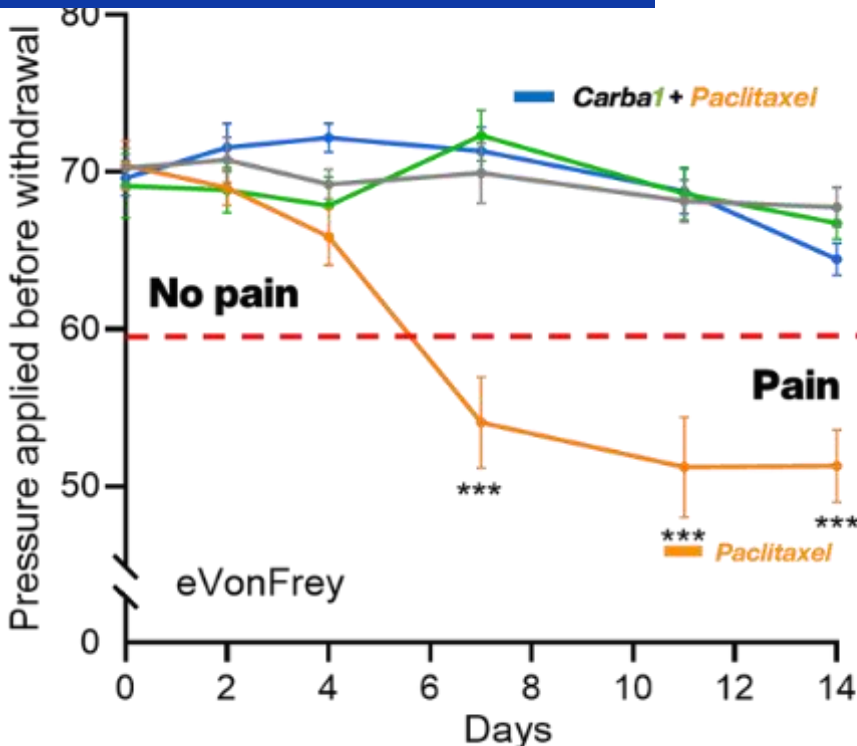


Effectiveness  
Strong evidence available

## Carba1 In vitro effects on neuropathies induced by Cisplatin



## Carba1 In vivo evidence on Neuroprotection





# Saxol at a glance



- **A young pre-clinical stage biotech piloted by a skilled team**
  - Strong, visionary & complementary team (Science, CMC, Reg, ...)
  - Intl Scientific Medical Board Installed
- **Game Changer Assets**
  - Pipeline patented, NAMPT, NAD<sup>+</sup> restoration
  - Pipeline including neuroprotective and analgesic compounds
- **Unmet Medical Need (no product preventing PN)**
  - CIPN, a major Unmet Medical Need as first indication
  - DPN, as second indication
  - Aging PN, ALS, CMT,... further indications
- **Strong body of evidence already available**
- **Robust Roadmap incl. Health Agencies scientific advices**

i-Lab award



**Carba1 1<sup>st</sup> product preventing PN**

**CarbaS**

Breakthrough therapies

Growth potential

High demand



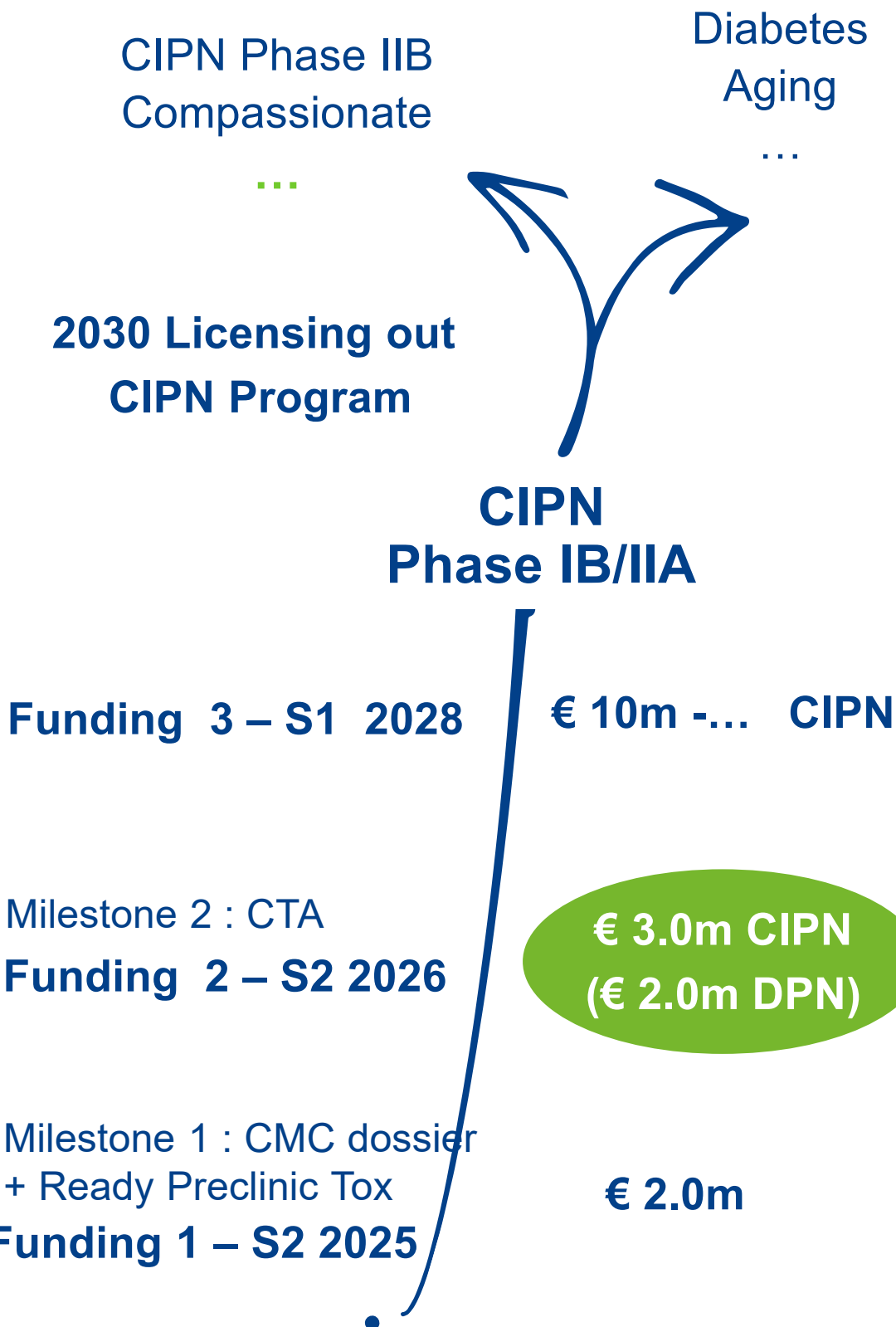
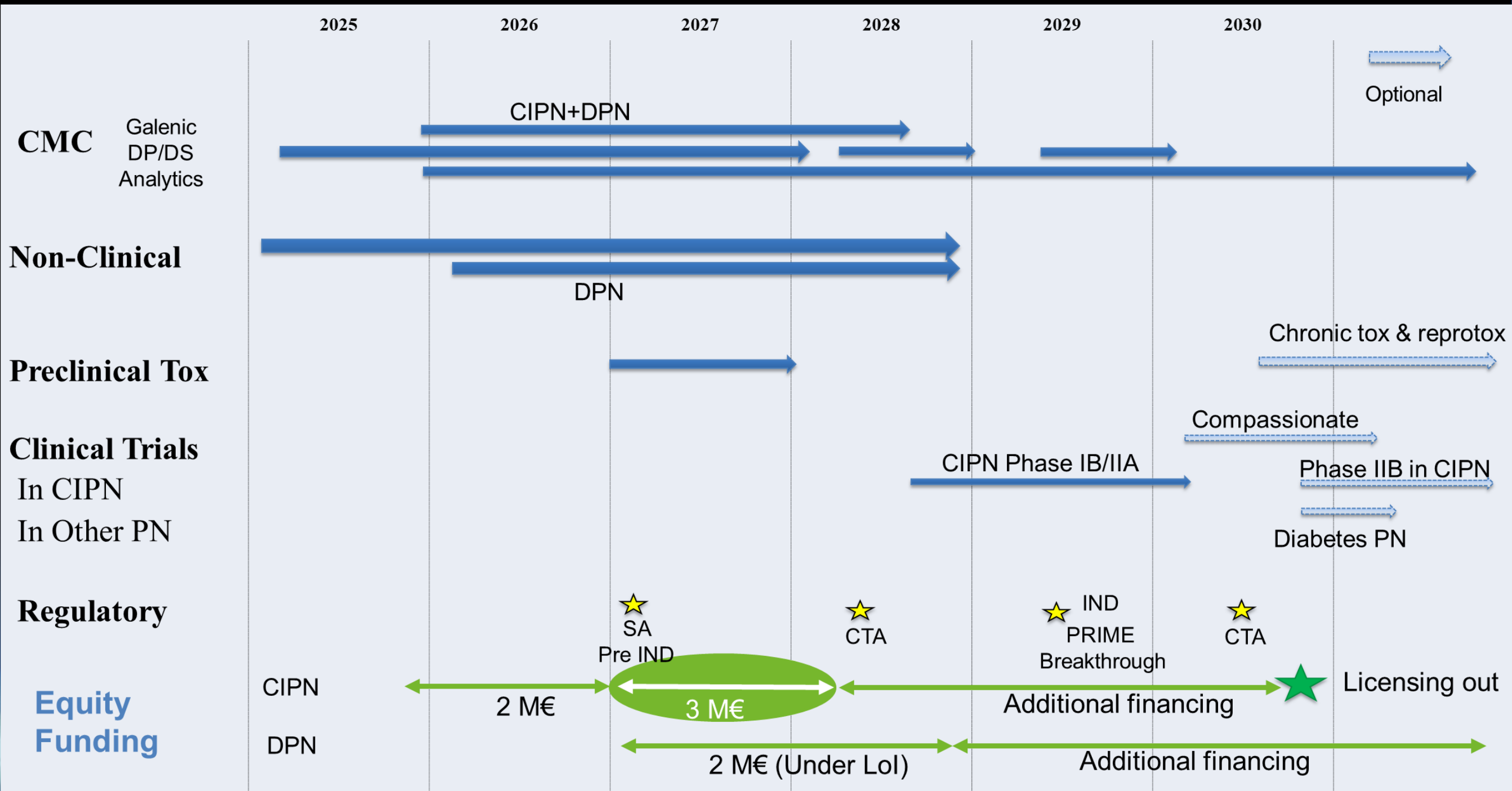
**SAM**

> € 10+bn  
(on CIPN indication only)



# CIPN Roadmap (DPN Launch included)

## Timeline





# Work Program detailed

## Highlights

- **2025-2026**
  - CMC, Non-Clinic, Regulatory. All activities launched
- **2027**
  - Regulatory Toxicology Program completion (subacute tox)
- **2028**
  - CTA request, CIPN Clinical Study phase IB/IIA start
- **2029**
  - CIPN Clinical Study phase IB/IIA
- **2030**
  - CIPN Program Licensing Out

**CMC** : Chemical Manufacturing & Control

**DS** : Drug substance, active ingredient

**DP** : Drug product, galenic formulation

**IMPD** : Investigational Medicinal Product Dossier

**PoC** : Proof of Concept

**CIPN** : Chemo-Induced Peripheral Neuropathies

**DPN** : Diabetes Peripheral Neuropathies

**CTA** : Clinical Trial application

**IB** : Investigator's Brochure

**Pol** : Proof of Interest

# Round 2– Use of Funds

- **Regulatory Preclinical Tox**

- Genotoxicity
- Safety Pharmacology
- Acute and sub acute (3mo)

- **CMC**

- GMP DS/DP Manufacturing
- IMPD preparation

- **Clinical Trial Preparation**

- Design
  - Umbrella type protocol
  - Tolerability and efficacy of Carba1/Taxane vs Taxane
  - Biomarkers and biological testing as main readouts for efficacy
- PI and sites selection

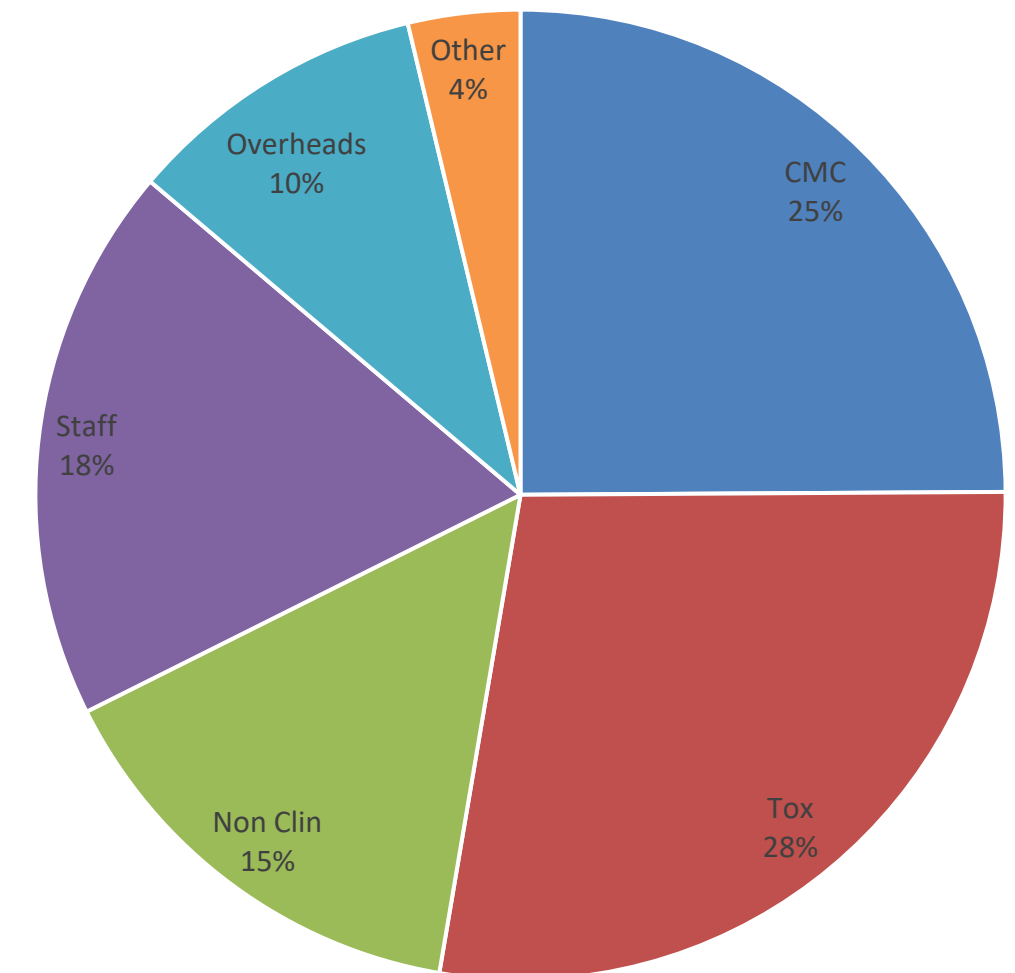
- **Regulatory**

- Pre-IND and scientific advices (FDA, MHRA, EMA/EU National Authorities)
- IMPD, IB and CTA preparation

- **General**

- Staff reinforcement (Clin, Qual)
- IP additional protections

Expenses





# Saxol SAS - Corporate Information

- **Corporate**

- Incorporated **Nov 2024**
- SAS Company, P. Bordeau President & CEO
- Board & SMB in place

- **ESG**

- **A 21<sup>st</sup> century company** **socially, economically and ecologically** accountable
- Manifesto in place

- **Pipeline**

- CarbaS,... as neuroprotective compounds
- Non-Opioid Pain Killer available for partnering &/or to improve for higher licensing value

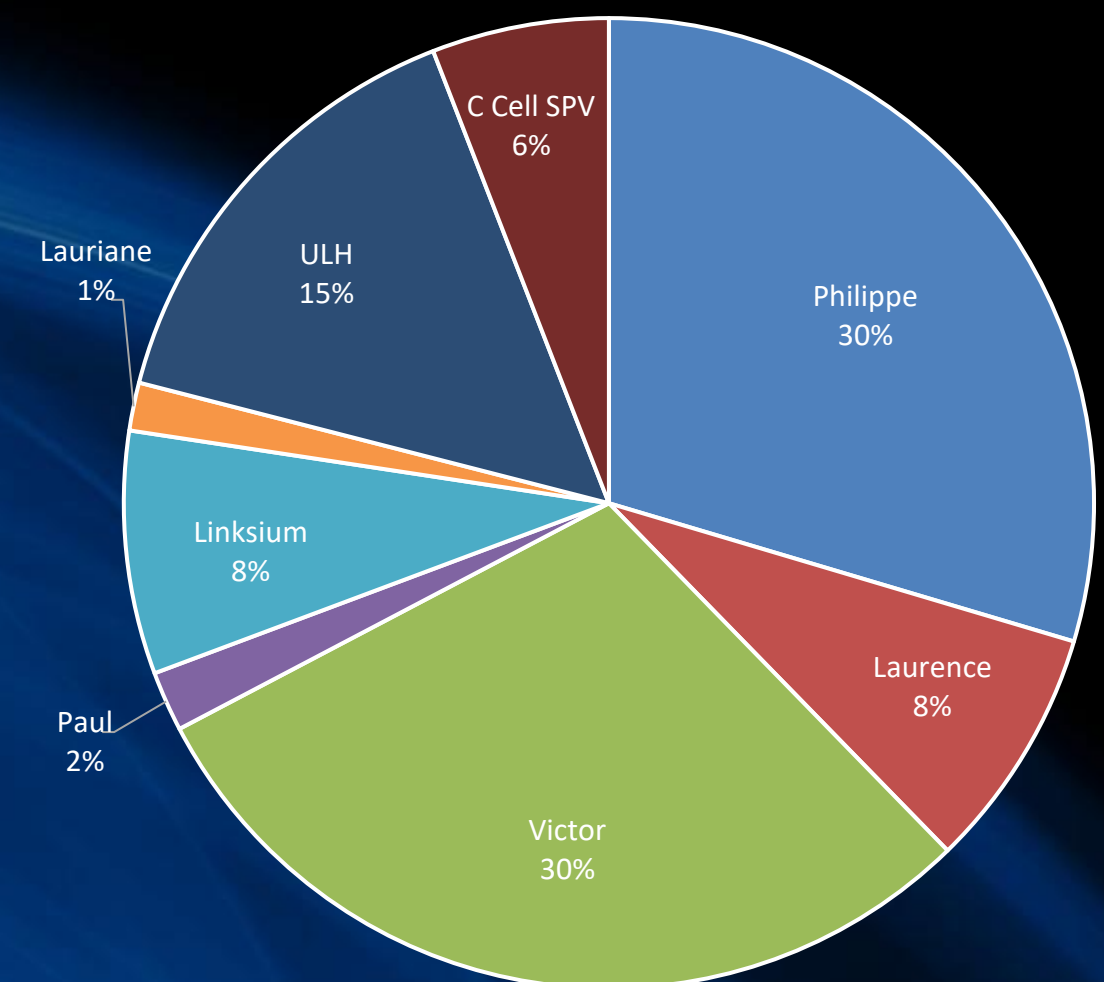
- **IP situation**

- Saxol owns exclusive CNRS/Linksium Patents license
  - 2 patents, 2019 & 2024. FtO
- Additional patent(s) to be requested during drug development

- **Fundraising**

- Looking for 3 M€ in Round 2 for CarbaS

## Shareholders (Round 1 completed)



# Pipeline

## Saxol develops several programs

	Entity	Discovery	Preclinical	Phase I	Phase II A
Peripheral Neuropathy (Nerve fibers protection)	Small Molecule (CarbaS)	SAX-101 in CIPN SAX-102 in DPN			
Pain (Analgesic)	Peptide	SAX-201* in Neuropathic Pain &/or Cancer Pain (Based on STR-324 program)			

STR-324 in Post-Op pain

\*Specific slidedeck available



# Saxol in the News

UP Re.Search, South Africa



Saxol, Startup of the year



Click on me youtube video

The Conversation



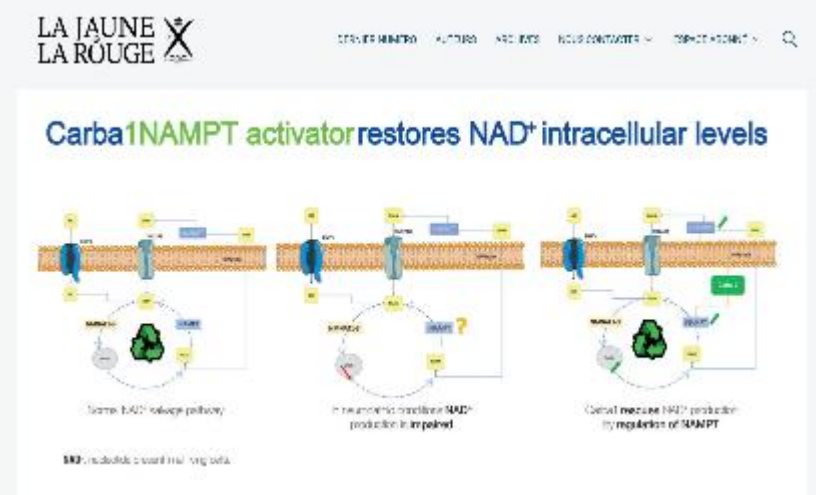
Le Figaro, Paper edition Nov 10, 2025



RTBF Belgium



Polytechnique alumni magazine





# Supporting Publications

**Bosc L, Pero ME, Balayssac D, Jacquemot D, Allard J, Suzanne P, Vollaie J, Cottet C, Michallet S, Villaret J, Torch S, Marais S, Elena-Herrmann B, Schlattner U, Mercier A, Josserand V, Thibert C, Dallemagne P, Bartolini F, Lafanechère L**, Preventing neuropathy and improving anti-cancer chemotherapy with a carbazole-based compound available here. *Sci Adv* 2025 Oct 31;11(44):eadw6328

**Lafanechère L**, The microtubule cytoskeleton: An old validated target for novel therapeutic drugs. *Front Pharmacol.* 2022 Sep 15;13:969183.

**Hoke A, Cerri F, Fisgin A, Riva N, Quattrini A**, Normal structure and pathological features in peripheral neuropathies, *J Peripher Nerv Syst* 2021 Nov;26 Suppl 2:S11-S20.

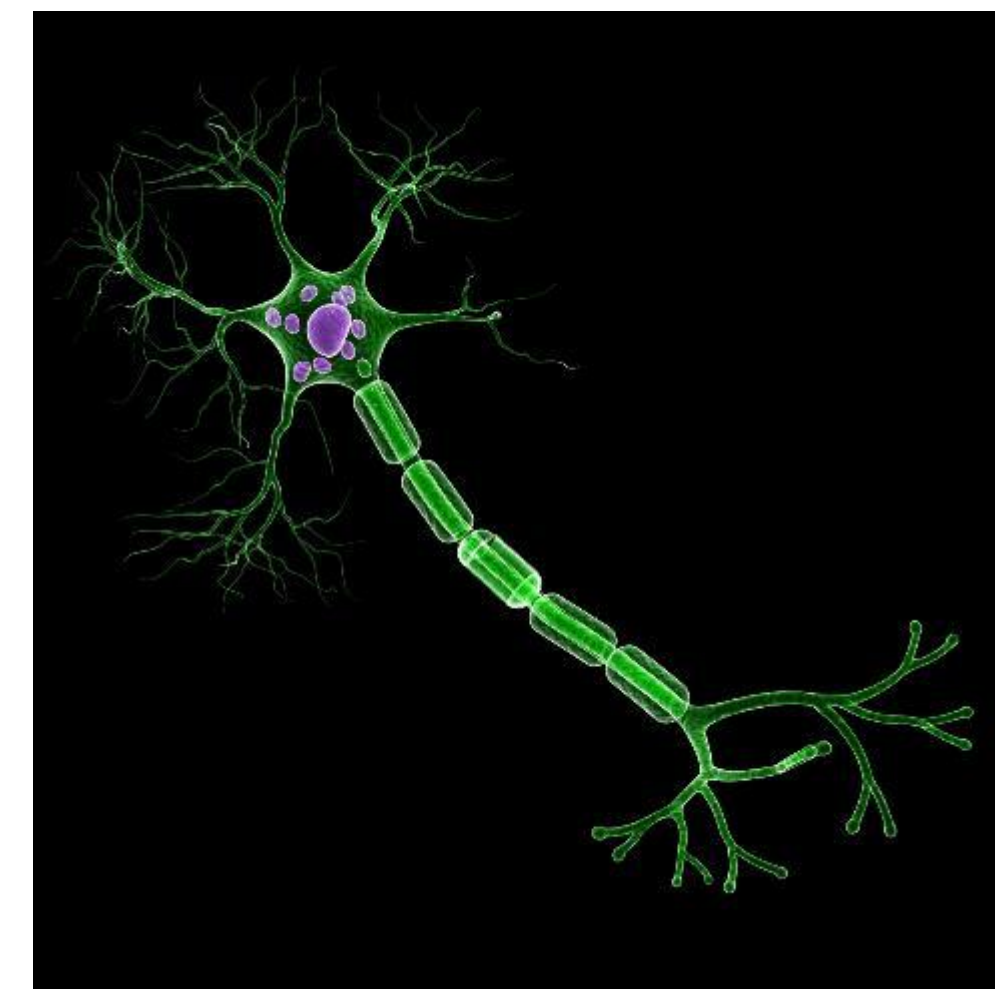
**Laisne MC, Michallet S, Lafanechère L**, Characterization of Microtubule Destabilizing Drugs: A Quantitative Cell-Based Assay That Bridges the Gap between Tubulin Based- and Cytotoxicity Assays, *Cancer* 2021 Oct 18;13(20):5226.

**Peronne L et al**, Two Antagonistic Microtubule Targeting Drugs Act Synergistically to Kill Cancer Cells. *Cancers.* 2020 Aug; 12(8): 2196

**Peronne L**, Caractérisation d'un nouveau composé pharmacologique qui potentialise la réponse des cellules au paclitaxel, *Biologie du développement – Oncogenèse Thesis*, 2019

**Issaa S, Prandina A, Bedel N, Rongved P, Yous S, Le Borgne M, Zouhair B** Carbazole scaffolds in cancer therapy: a review from 2012 to 2018. *Enzyme inhibition and medicinal chemistry* 2019, vol. 34, no. 1, 1321–1346

**Wilson B, Jacob S, Yap M, Ferlay J, Bray F, Barton M** Estimates of global chemotherapy demands and corresponding physician workforce requirements for 2018 and 2040: a population-based study *Lancet Oncol* 2019; 20: 769–80



*Neuron representation  
(including axon)*



# Saxol

Neuroprotecting  
Patient's Future



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i-Lab Award

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Scientific Additional informations

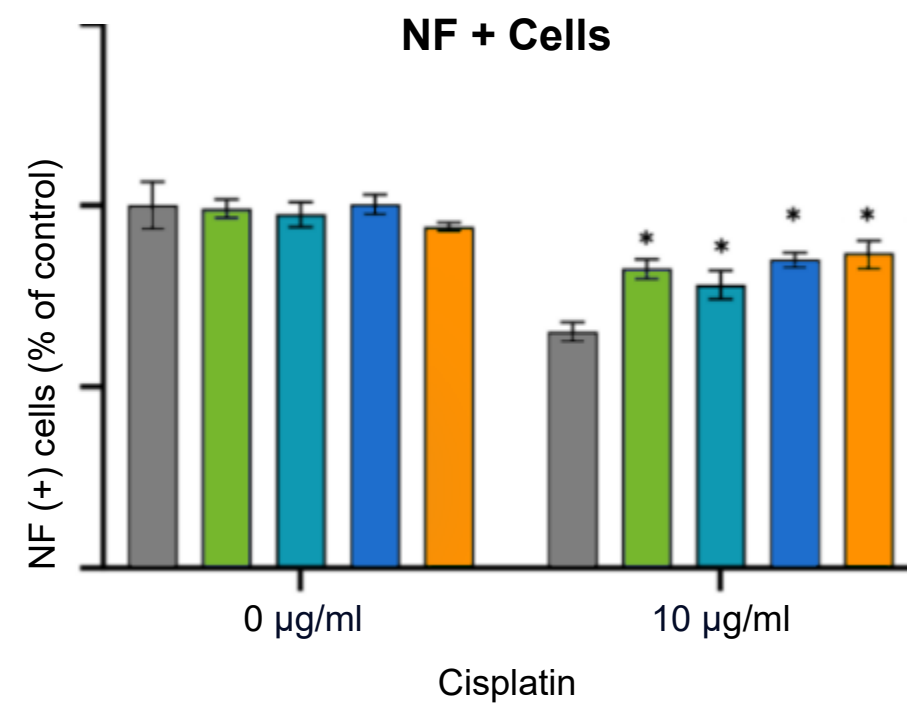


# Neurology

## Carba1 In vitro effects on neuropathies induced by Cisplatin

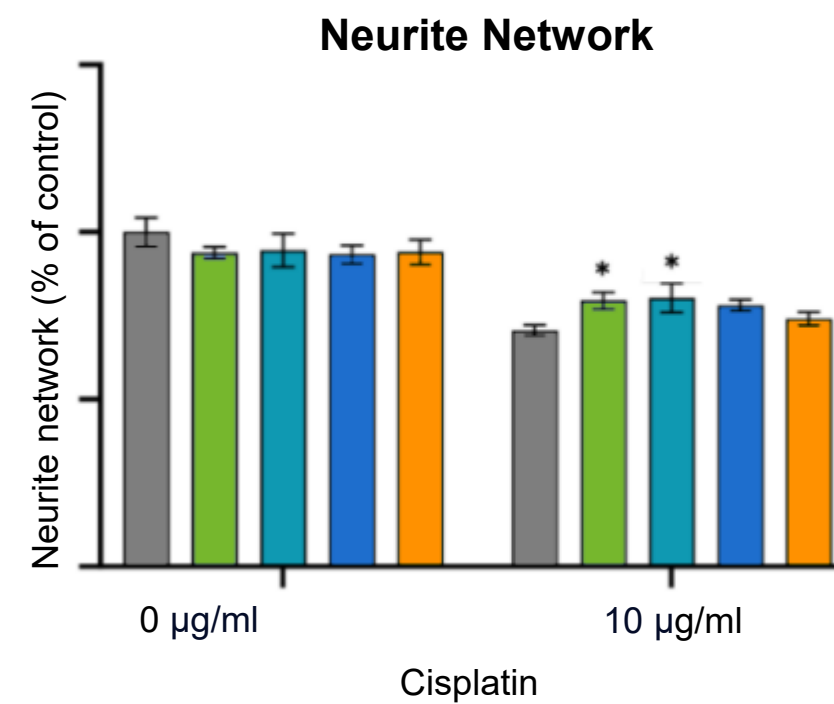
### Number of neurons

NF (+) Cells in a primary culture of sensory neurons and Schwann cells Injured with Cisplatin



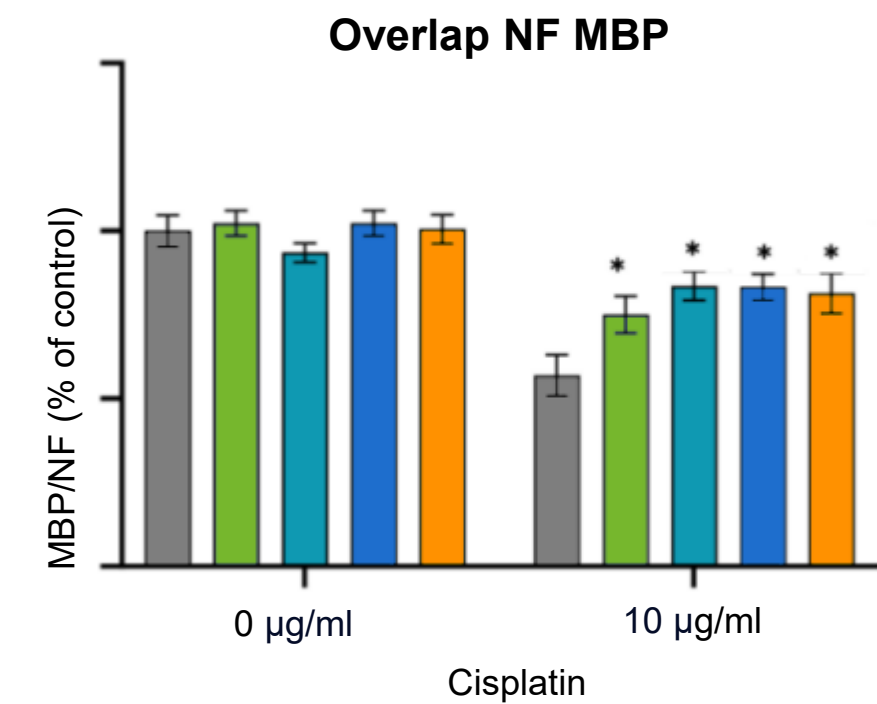
### Length of neuronal network

Length of the neurite network in a primary culture of sensory neurons and Schwann cells injured with Cisplatin



### Axon myelination

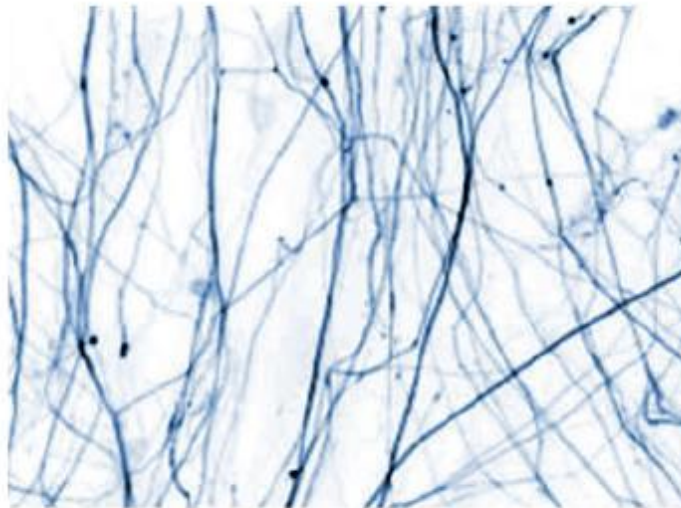
Peripheral myelination in a primary culture of sensory neurons and Schwann cells injured with Cisplatin



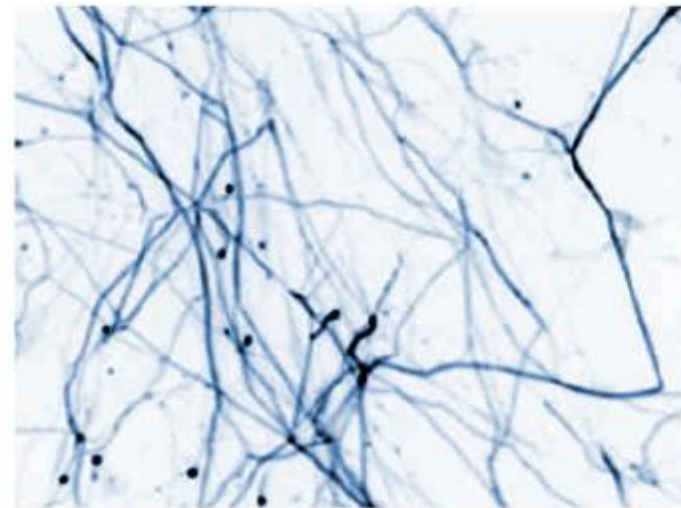
Control Carba1 1 µM Carba1 5 µM Carba1 10 µM P7C3 5 µM

## *Carba1* In vitro Neuroprotection - Paclitaxel

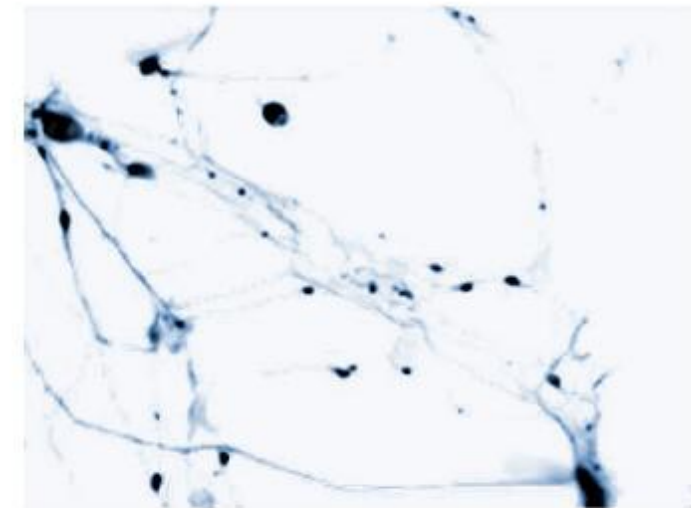
DMSO



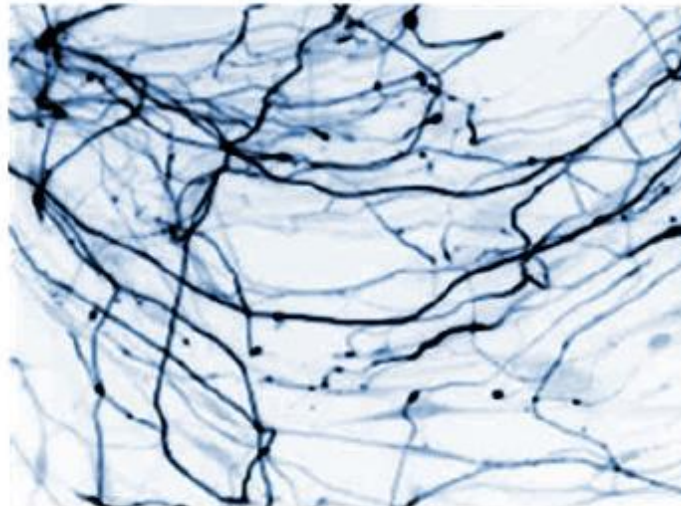
1nM Tax



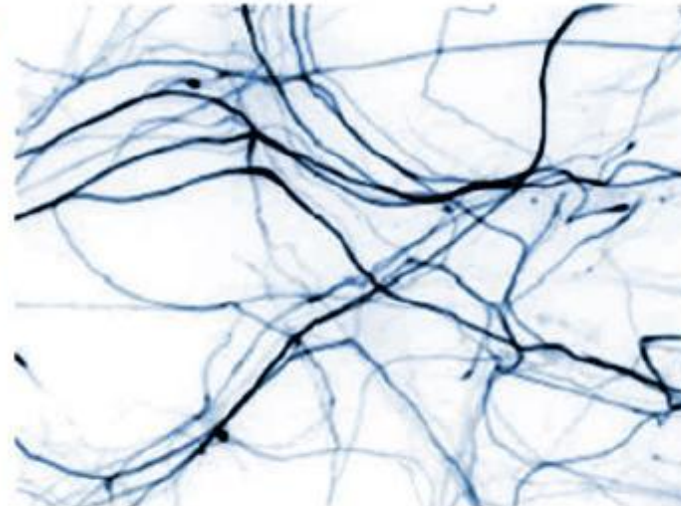
50nM Tax



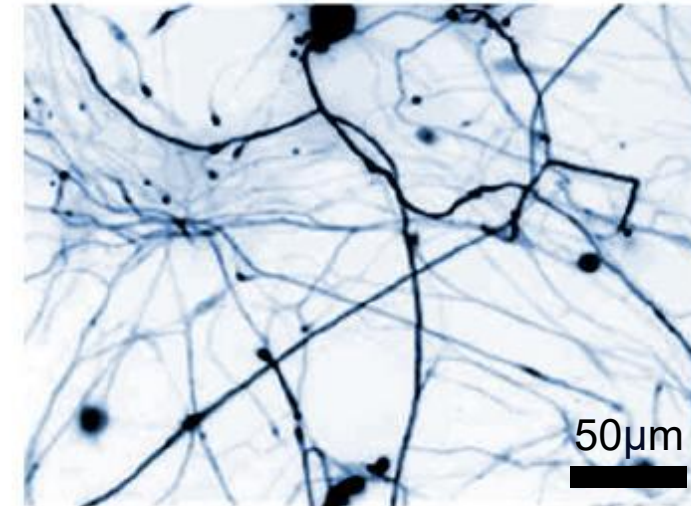
12  $\mu$ M *Carba1*



12  $\mu$ M *Carba1* + 1nM Tax

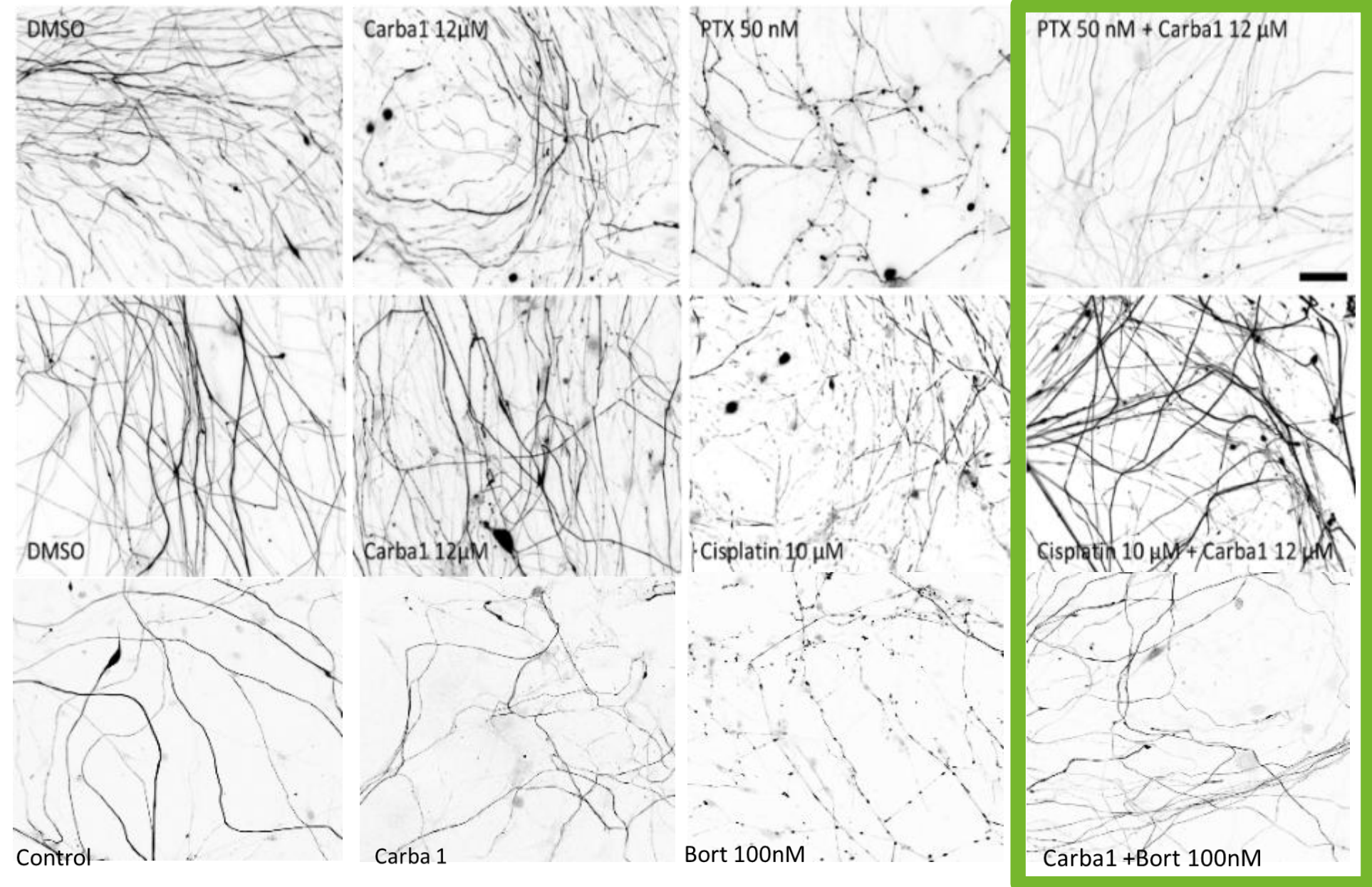
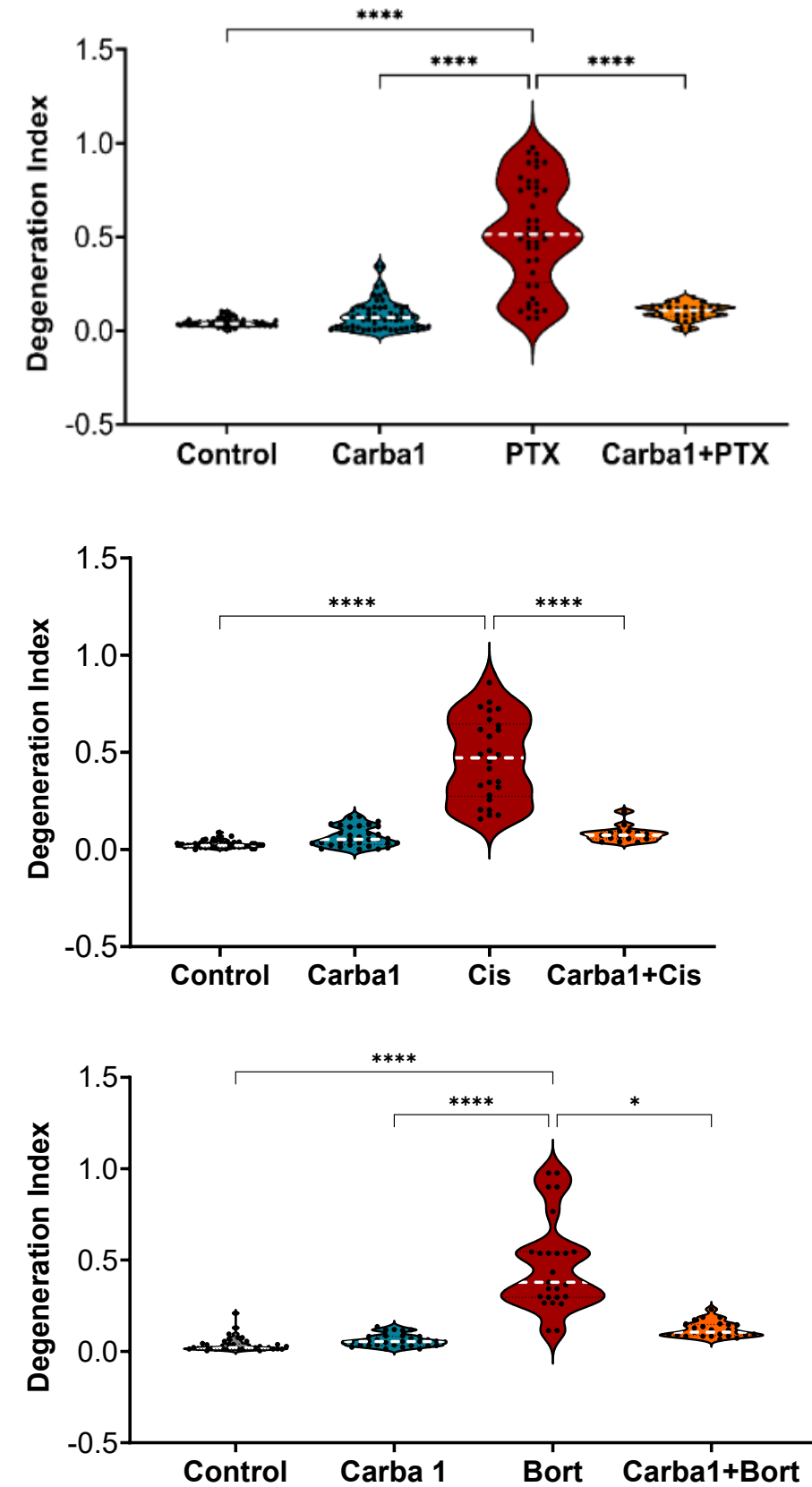


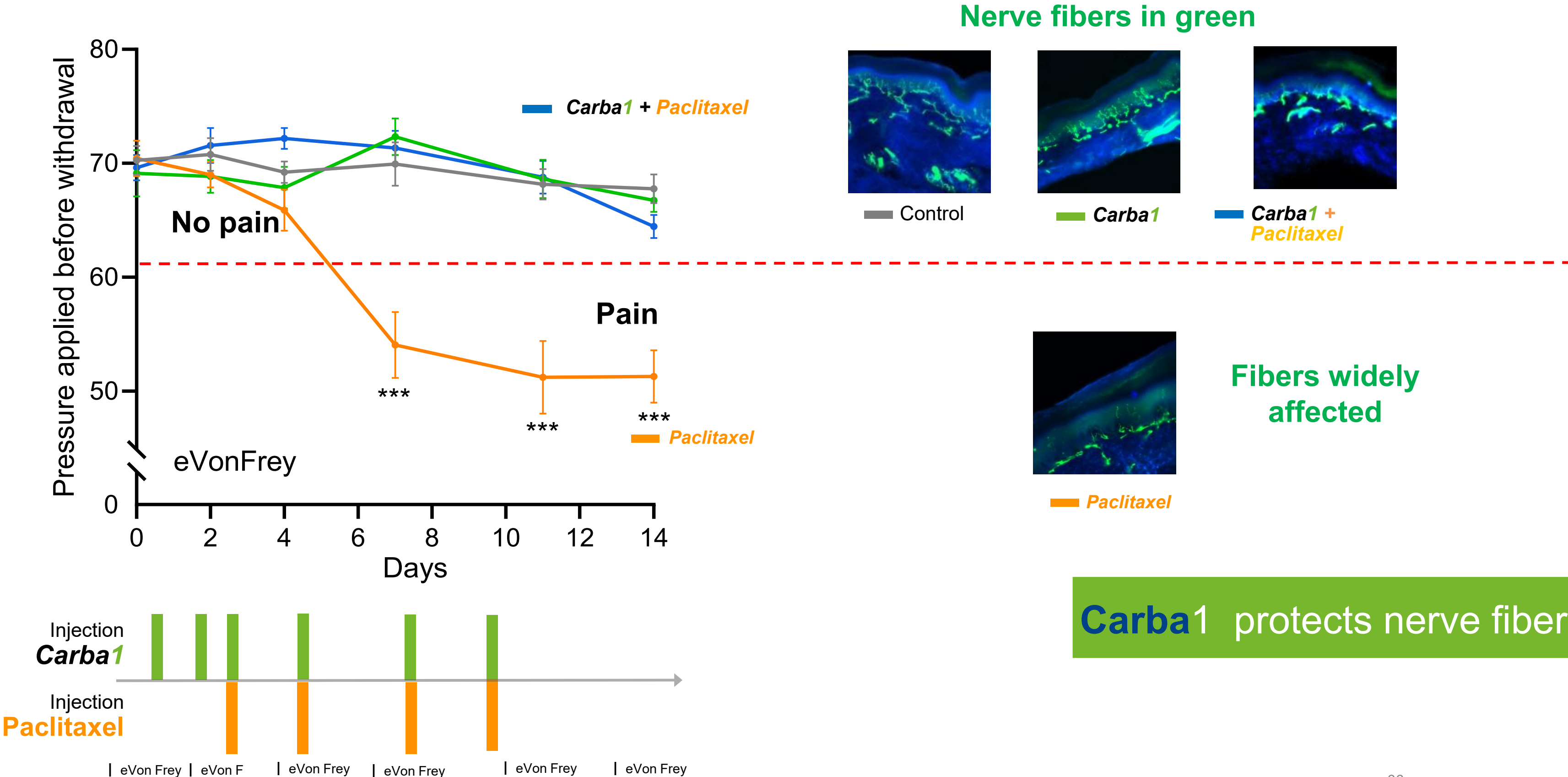
12  $\mu$ M *Carba1* + 50nM Tax





## Carba1 *In vitro* Neuroprotection – PTX, Cisplatin & Bortezomib





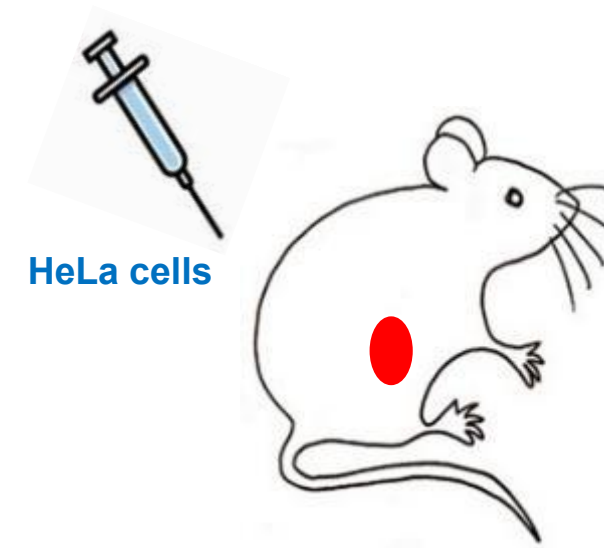
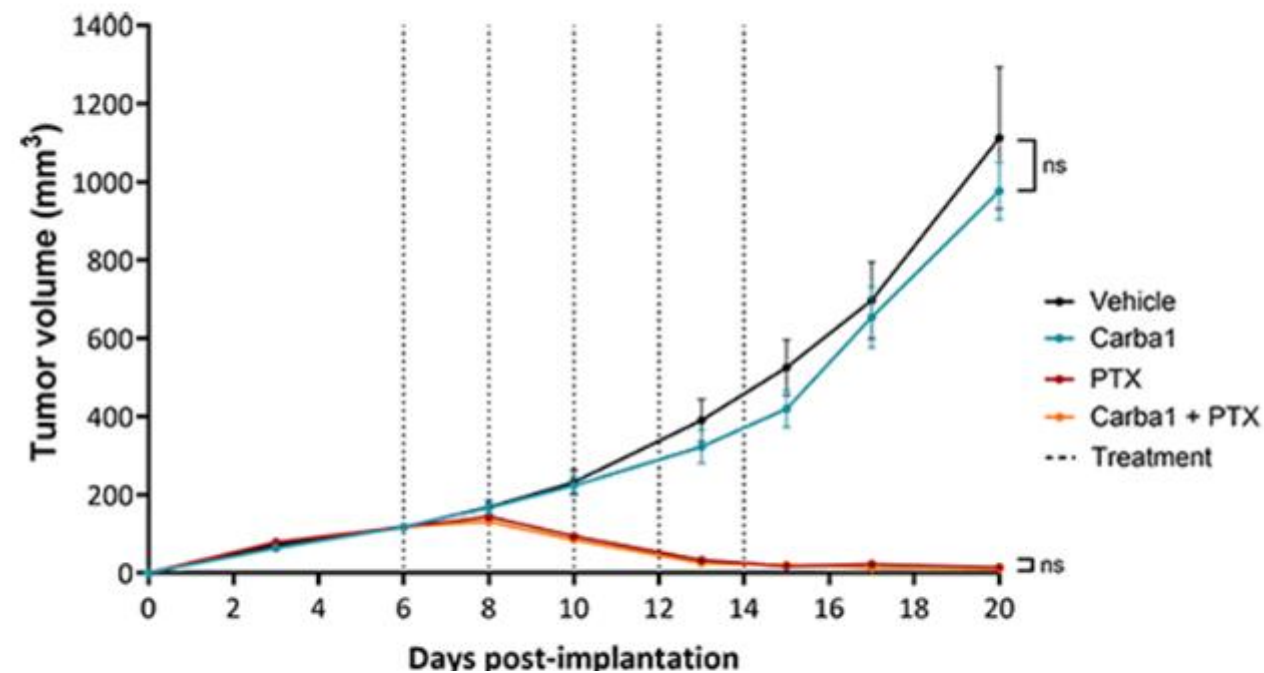


# Oncology

## Carba1 does not stimulate tumor growth

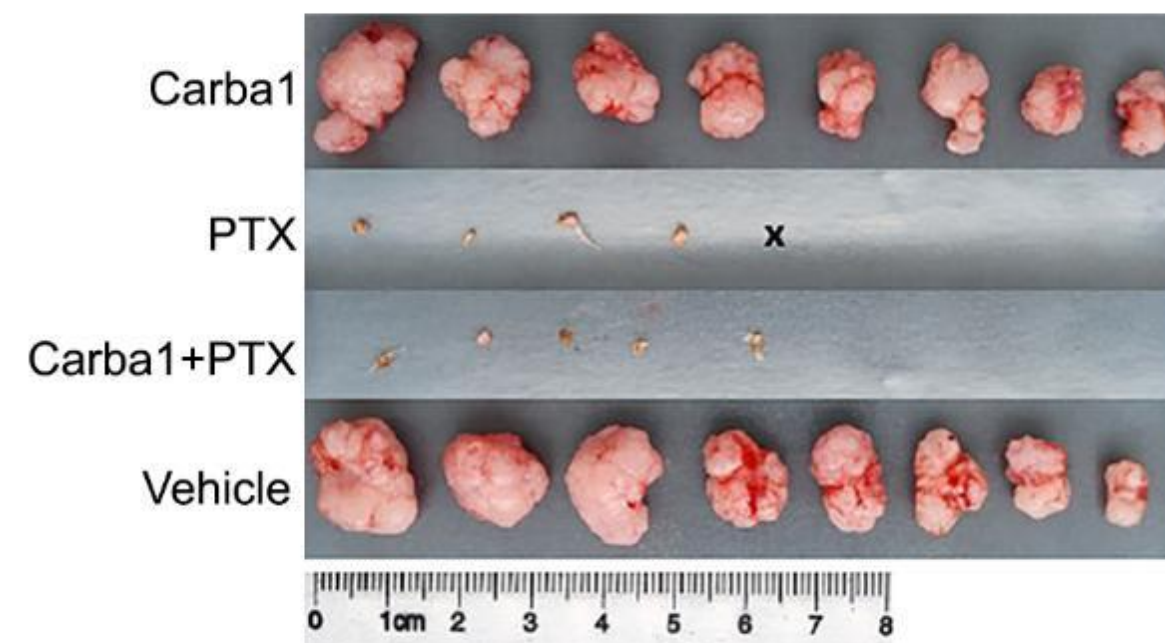
➤ Carba1, Paclitaxel (PTX) and combined effects on tumoral growth in mice

**A**



HeLa cells were injected into the flank of mice. When the tumors have reached a sufficient size, mice were treated (dashed line) with **Carba1** or **PTX** only or with a **combination of the two**

**B**



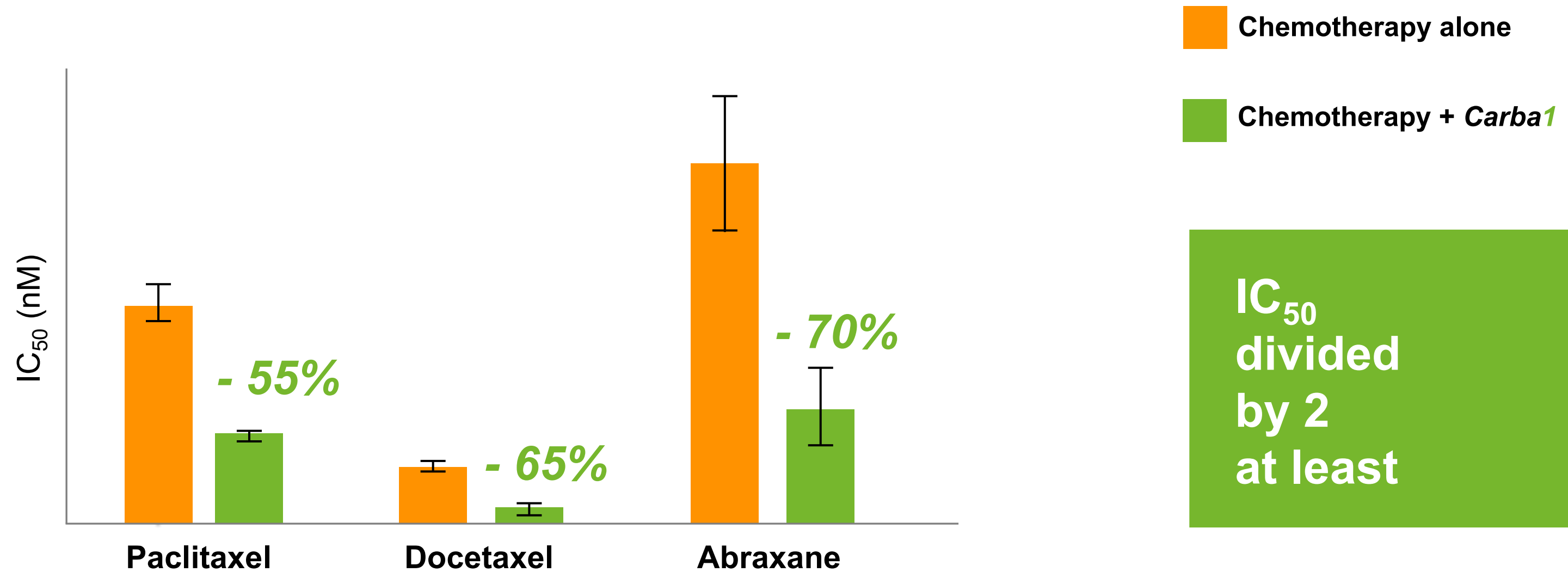
NAMPT activation is generally thought to stimulate tumor growth. Our findings demonstrate that **Carba1** does not.

**Carba1 is not protumoral**

**Carba1 does not compromise PTX antitumoral efficacy**

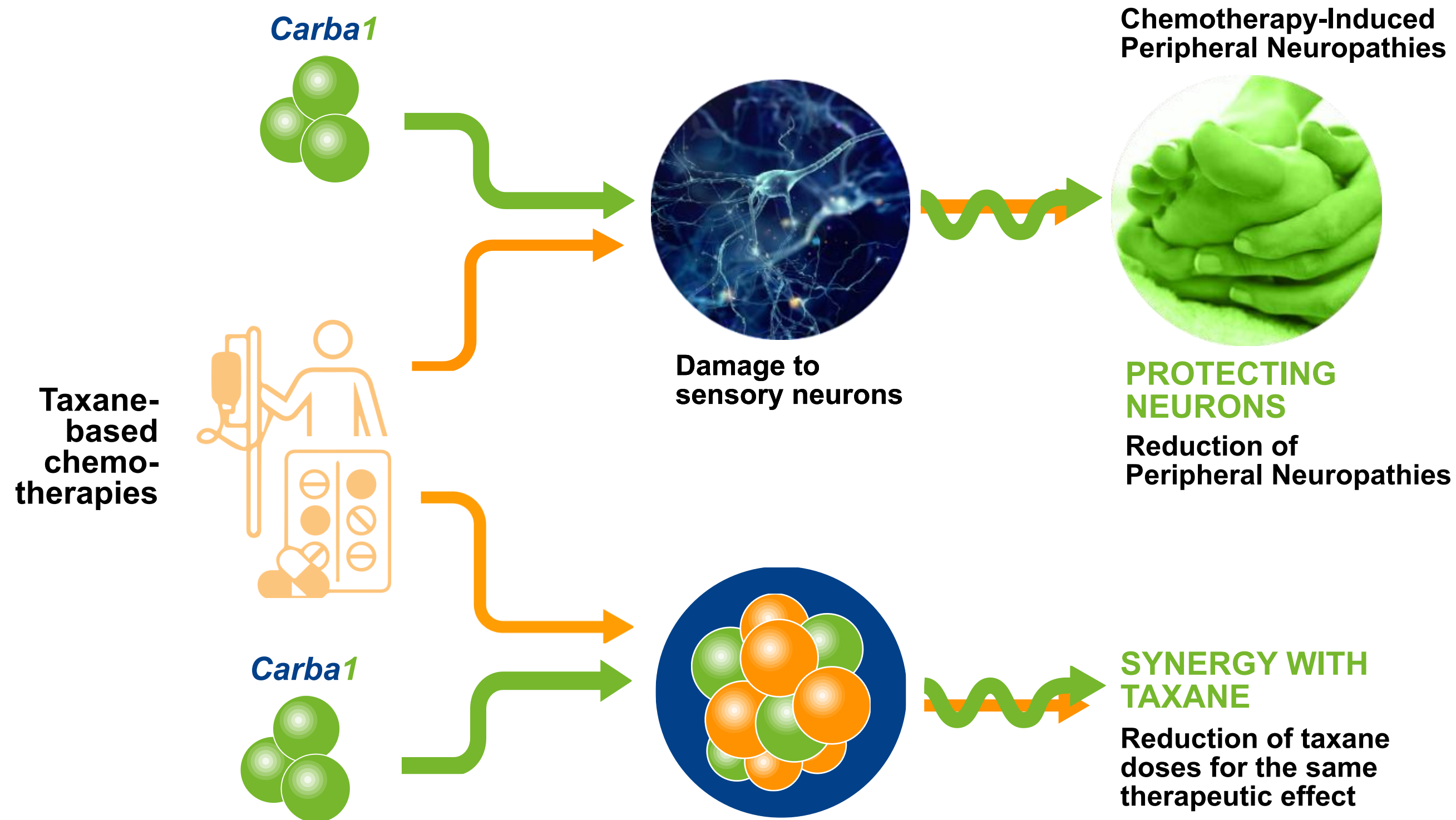


Compound dose required to reach IC<sub>50</sub> (HeLa cells)





# Carba1 – Dual Interest for Peripheral Neuropathies Induced by Taxane



**Protecting  
neurons  
& Reducing  
Taxane dose**

**2 ways to  
reduce CIPN**