

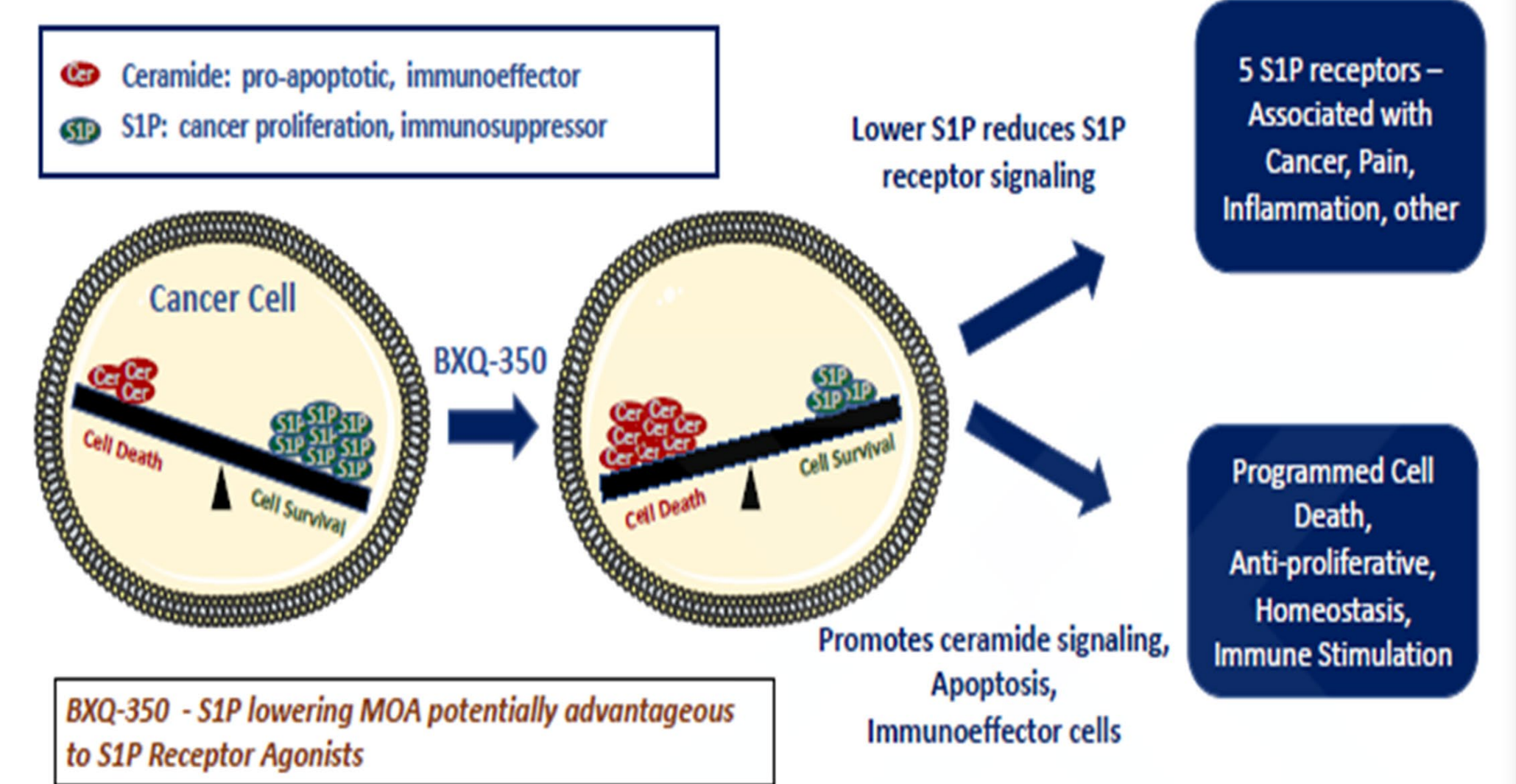
# BXQ-350 may protect peripheral nerves from the direct cytotoxicity of chemotherapeutic agents leading to chemotherapy induced peripheral neuropathy



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## 1. BXQ-350 is a nanovesicle formulation of Saposin C, an allosteric activator of sphingolipid metabolism

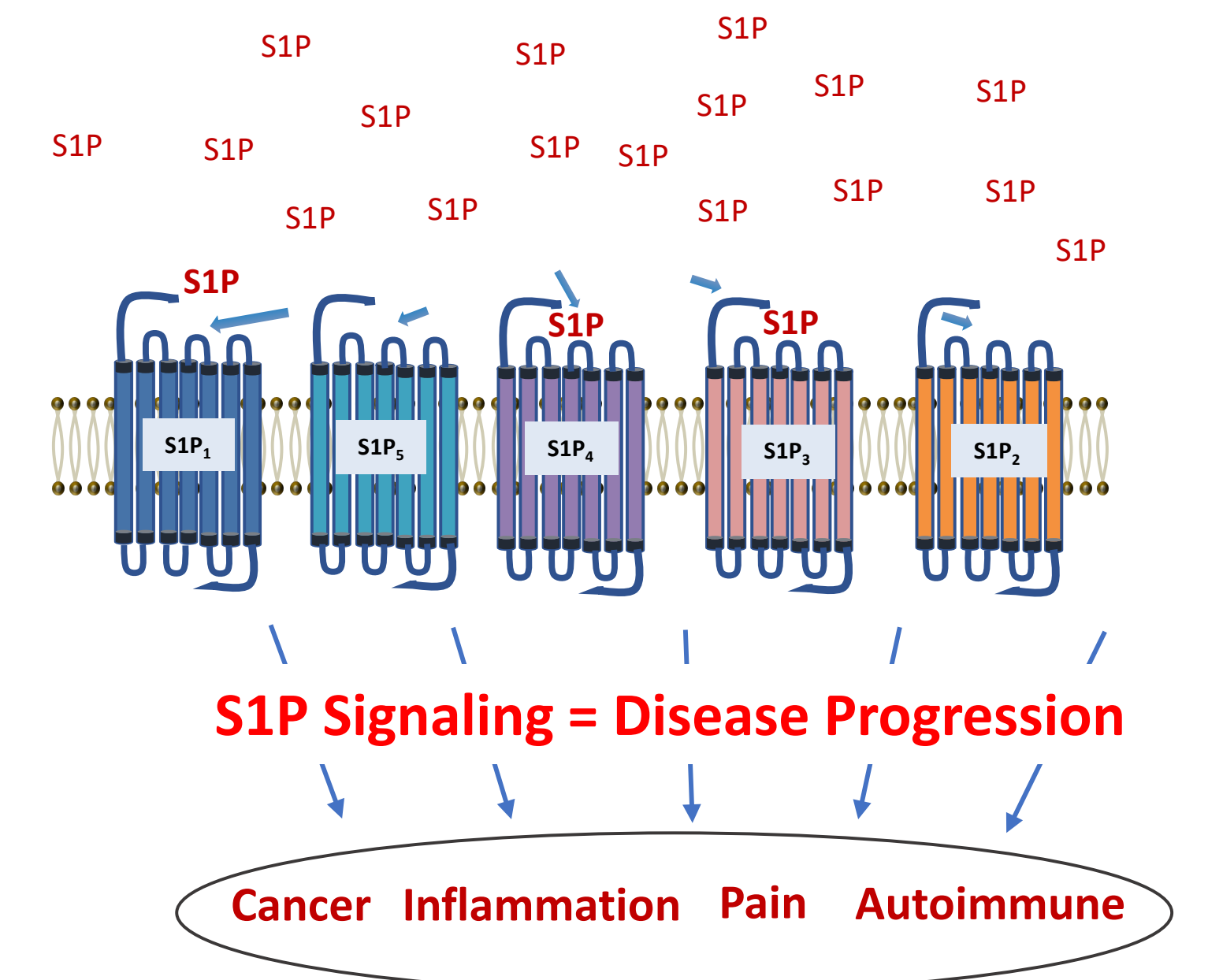
- Normalizes dysregulated sphingolipid metabolism, **lowering S1P and increasing ceramides levels**
- **Modulates S1P signaling & stimulates immune response**



## 2. Background: Chemotherapy induced Peripheral Neuropathy (CIPN) is a debilitating side-effect from chemotherapy

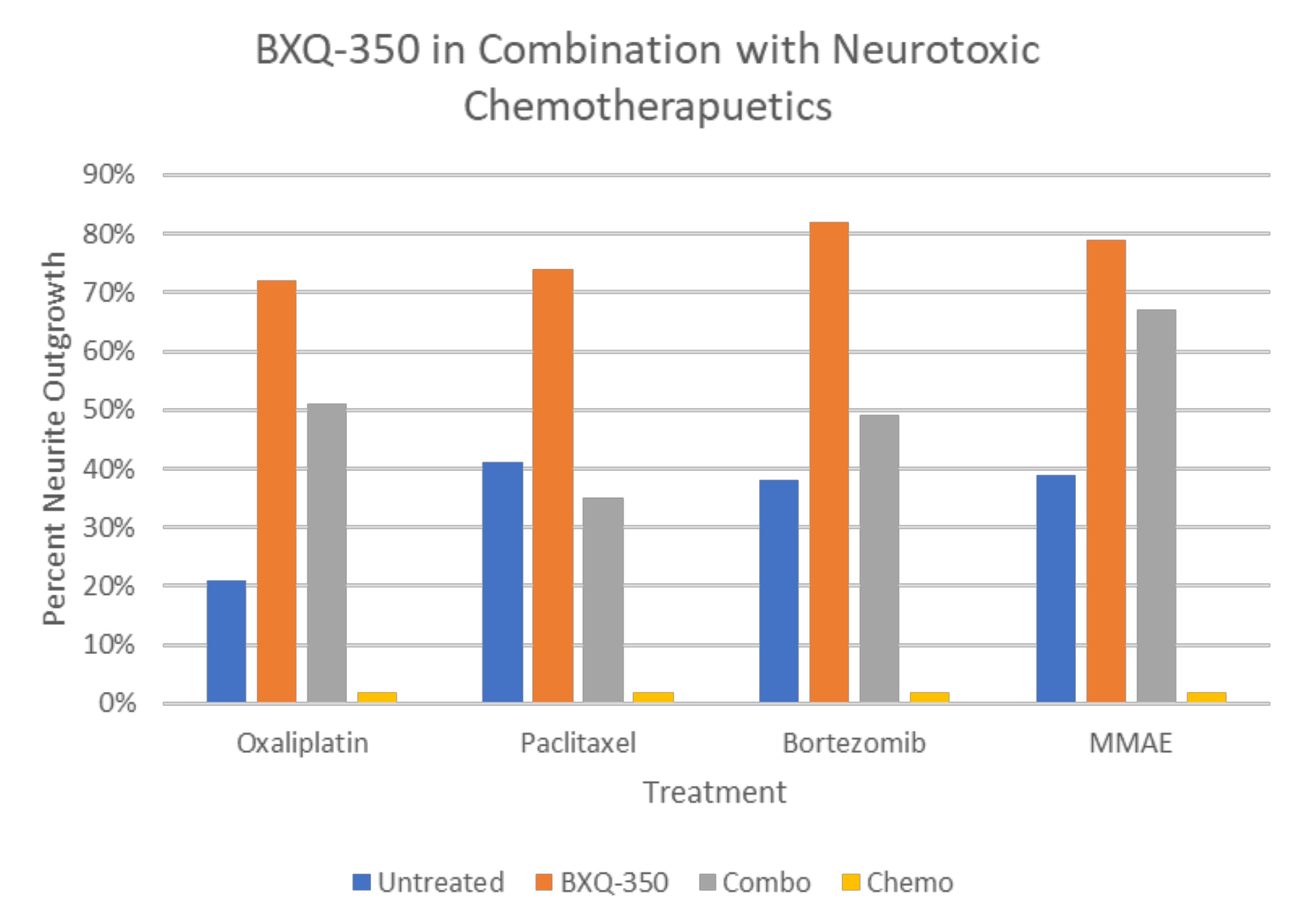
- **CIPN causes patients to come off treatment while decreasing patient quality-of-life**
- **BXQ-350 has been shown *in vitro*, in PC-12 cells, and *in vivo*, in a CIPN mice model, to be neuroprotective in the presence of neurotoxic agents**
- Studies have shown **increase in S1P levels play a factor in propagation of neuropathic pain.**

*S1P signaling activates multiple oncogenes and induces a pro-tumoral immunosuppressive environment*  
E.g., see Grbic, P. et al. *S1P Signaling and Metabolism in Colon Cancer*. *Molecules*, 2020, 25, 2436.



## 3. In-vitro Results, BXQ-350:

- Oxaliplatin, Paclitaxel, MMAE, and Bortezomib are known neurotoxic chemotherapeutics.
- **BXQ-350 allows for neurite outgrowth, a marker of neuron health, in combination with these agents.**



## Summary

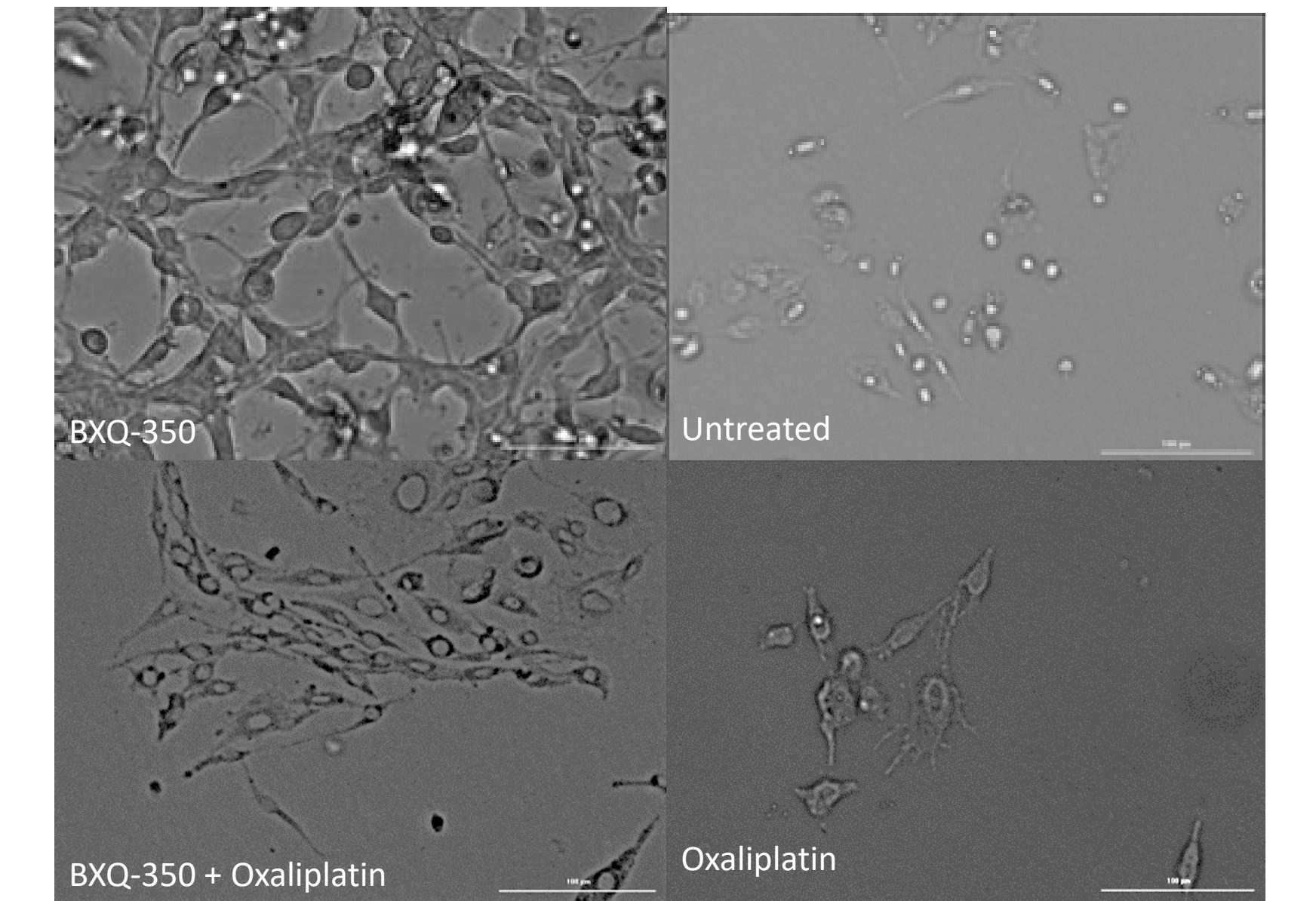
- **BXQ-350 is a novel biologic** and a nanovesicle formulation of Saposin C, an allosteric activator of enzymes involved in sphingolipid metabolism
- BXQ-350 increases the ability of neurons to extend neurites compared to wild type and in combination with neurotoxic agents *in vitro*.
- BXQ-350 increases neuronal cell health and promotes the growth of healthy neurons *in vitro*.
- **BXQ-350 protects against CIPN symptoms *in vivo* in a dose-dependent manner.**
- BXQ-350 modulates sphingolipid metabolism, **lowers S1P and increases ceramide levels**

## On-going Studies

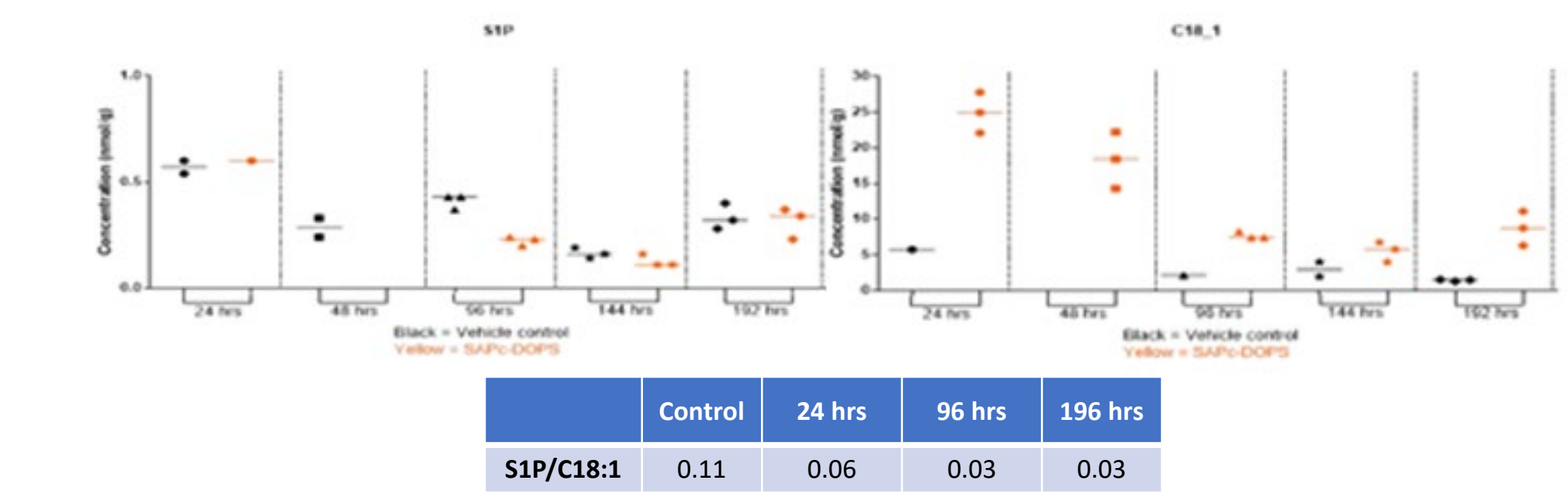
- Preclinical studies to illustrate BXQ-350's CIPN MOA  
BXQ-350 is clinically being investigated in:
- Phase 1/2 study in combination with SoC in newly diagnosed mCRC patients (NCT05322590)
  - PoC and PK/PD study in cancer patients with established CIPN (NCT05291286)
  - Phase 2 study in combination with radiation in pediatric DIPG/Diffuse Midline Glioma patients (NCT04771897)

**Acknowledgement:** Patients who participated in the trials and their families, clinicians and staff at investigational sites, Bexxion's personnel

- **BXQ-350 promotes healthy cell growth compared to untreated or neurotoxic agent treated cells**

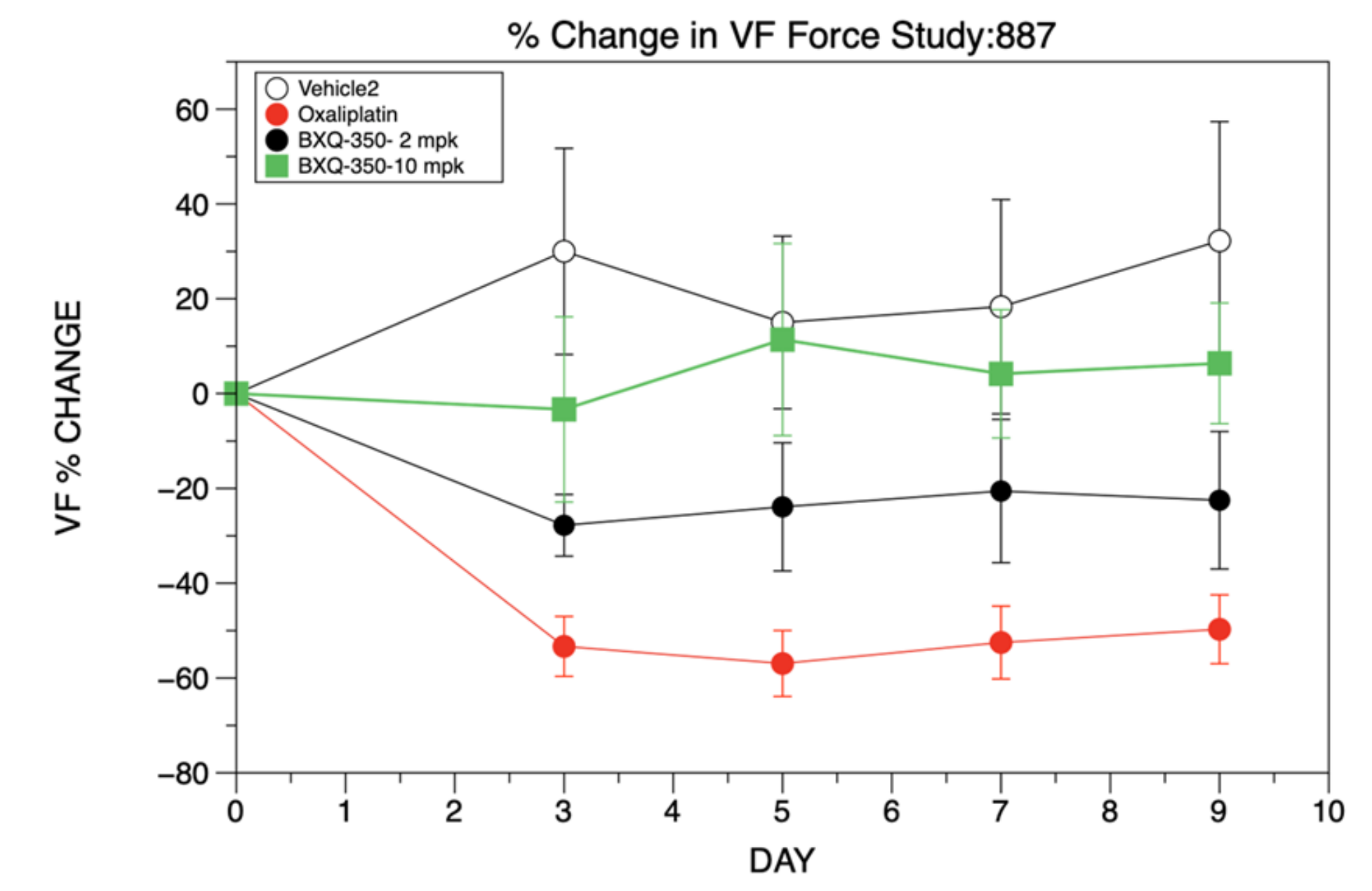


- **BXQ-350 increases C18 levels and decreases S1P levels**



## 4. In Vivo Results, BXQ-350:

- **Preclinical CIPN mouse model treated with Oxaliplatin, a known neurotoxic agent, or BXQ-350 in combination with Oxaliplatin to determine protection against CIPN**
  - Protection was tested via mechanical allodynia
  - **BXQ-350 showed a dose-dependent increase in protection against Oxaliplatin induced CIPN**



## Oxaliplatin vs Combos vs Vehicle

- **2 mg/kg BXQ-350 confers protection against CIPN**
- **10 mg/kg BXQ-350 protects against CIPN returning mice to near non-CIPN levels**