

# BXQ-350, a First-in-class Sphingolipid Metabolism Modulator, Reduces Incidence, Severity and Time to On-set of Chemotherapy Induced Peripheral Neuropathy in Newly Diagnosed Metastatic Colorectal Cancer Treated with BXQ-350 and mFOLFOX7+bevacizumab

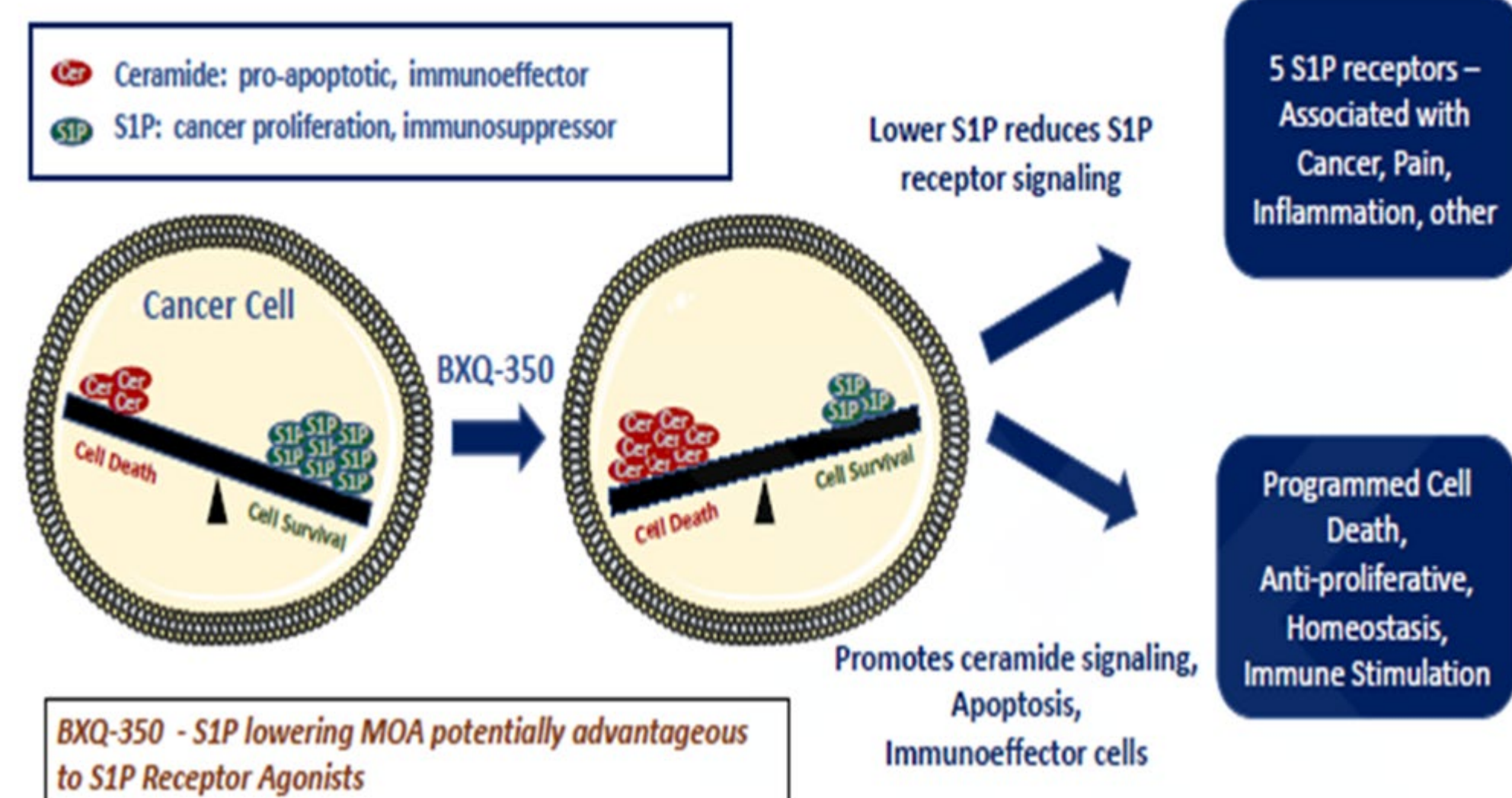


G. Tapolsky, T Arshad, J. Beach, J. Bond, M. Gazda, N. Wilkins

Bexion Pharmaceuticals, Covington, KY.

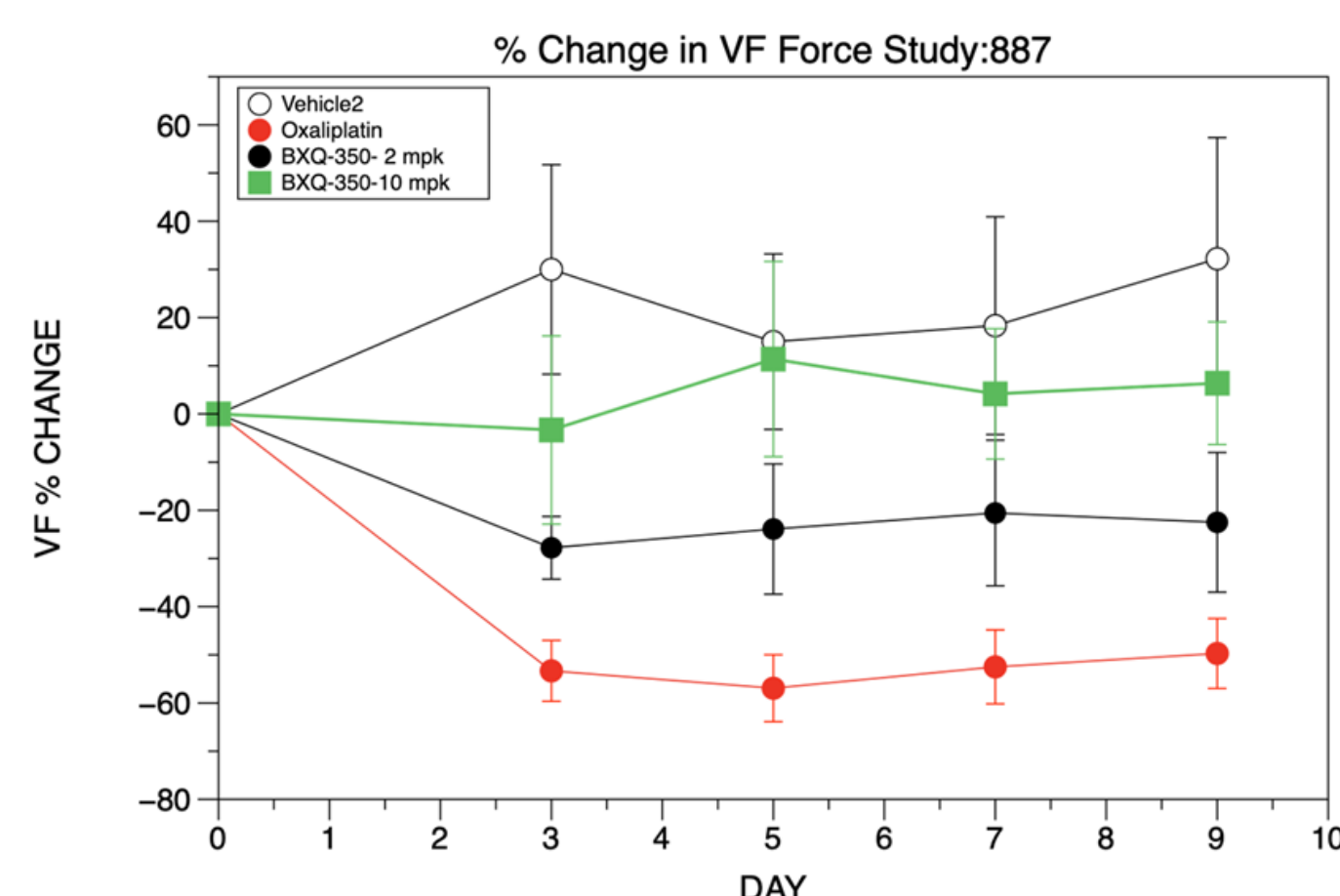
## 1. Background:

- Chemotherapy-induced peripheral neuropathy (CIPN) is a significant side effect associated with many chemotherapeutic agents.
- CIPN is highly prevalent in CRC patients receiving therapeutic regimens including oxaliplatin; ~15-20% of patients suffer from chronic CIPN severely impacting their quality of life (QoL) and may require treatment interruption.
- CIPN's pathology is complex; preclinical and clinical data has shown inflammatory (IL-6, IL-8, IL-10) and immune involvement
- Dysregulated sphingolipid metabolism is associated with many diseases including cancer and CIPN



## 2. BXQ-350 Preclinical Data:

- BXQ-350 protects and rescues neurons from chemotherapeutic agents' neurotoxicity promoting neuronal and axonal metabolism and growth
- BXQ-350 protects from oxaliplatin-induced CIPN in a murine mechanical allodynia model in a dose-dependent manner



## 3. Methods:

- BXQ-350 is being investigated in a Phase 1b/2 study in combination with mFOLFOX7 and Bevacizumab (SoC) in newly diagnosed mCRC patients (NCT05322590) to assess the efficacy and safety of BXQ-350.
- Phase 1b is an open label safety dose escalation to establish the RP2D exploring 1.8 and 2.4 mg/kg BXQ-350 in combination with SoC. At 2.4 mg/kg (no DLT), 9 patients were safely dosed, then additional patients were dosed to complete a 30-patient expansion cohort.
- Primary objectives are to assess safety and preliminary efficacy of BXQ-350 in this combination, to include determining cumulative oxaliplatin dose. A secondary objective is to determine if BXQ-350 decreases intensity, frequency, and/or delays on-set of CIPN.

## 4. Results:

- Key findings are reduction in incidence and delay in development of severe neuropathies, while enabling an increase in the total dose administered of oxaliplatin.

Study	% 6+ Doses Oxaliplatin	% <6 Doses Oxaliplatin	Cycles Dosed	Bexion % vs RWE	Grade CIPN	Bexion % vs RWE
TRIBE2	68	32	C8	85% vs 50%	G2	36% vs 50%
Bexion Study	94	6	C10	76% vs 25%	G3	12% vs 18%
			C12	58% vs 20%	C10 G2	28% vs 50%
			>C12	27% vs 10%	C12 G3	6% vs 48%

## 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 modulates dysregulated sphingolipid metabolism, lowers S1P and increases ceramide levels promoting a return to homeostasis
- BXQ-350 may prevent and resolve CIPN
- BXQ-350 is well-tolerated and showed signs of single agent activity in multiple tumor types in patients with solid tumors refractory to standard therapies
- BXQ-350 is well-tolerated in combination with mFOLFOX7 + bevacizumab in 1L mCRC patients:
  - Disease control rate (DCR) is 91%, ORR is 61% and mPFS is currently 10.6m
  - Safety profile for the combination appears better than historical safety data for mFOLFOX7 + Bevacizumab, including reduced incidence and/or severity of CIPN.
- Biomarkers based on plasma levels of S1P & Ceramide, Cytokines, PBMCs, and NfLs.

## Other Completed Trials:

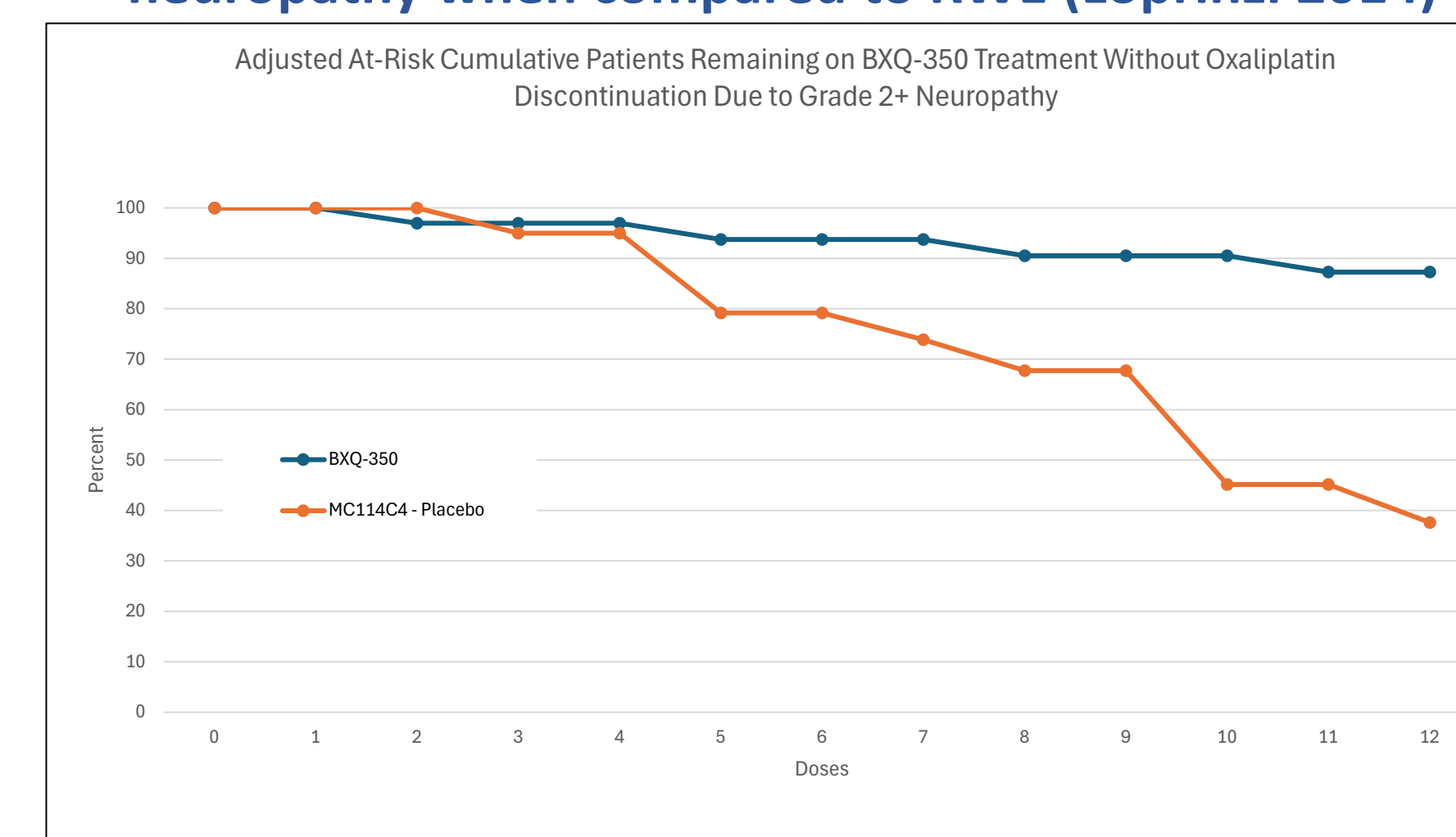
- PoC and PK/PD study in cancer patients with established CIPN (NCT05291286)
- Phase 1 study in combination with radiation in pediatric DIPG/DMG patients (NCT04771897)
- Phase 1 study of BXQ-350 in adult patients with advanced Solid Tumors (NCT02859857)

## Related Posters at AACR 2026:

- Session PO.CTP01.01 Poster CT084/15 A Phase 1b/2a study to evaluate the efficacy and safety of BXQ-350 in combination with mFOLFOX7 and bevacizumab in newly diagnosed metastatic colorectal carcinoma patients (mCRC): Evidence of lower incidence and severity of CIPN events.
- Session PO.CTP01.03 Poster CT220/15 A Phase 1b/2a study to evaluate the efficacy and safety of BXQ-350 in combination with mFOLFOX7 and bevacizumab in newly diagnosed metastatic colorectal carcinoma patients (mCRC): Interim efficacy subset analyses.
- Session CL01.04 Poster 3737/9 BXQ-350: A novel biologic that targets dysregulated sphingolipid metabolism and normalizes key anti-tumoral and pro-tumoral sphingolipids in newly diagnosed metastatic colorectal carcinoma patients (mCRC).

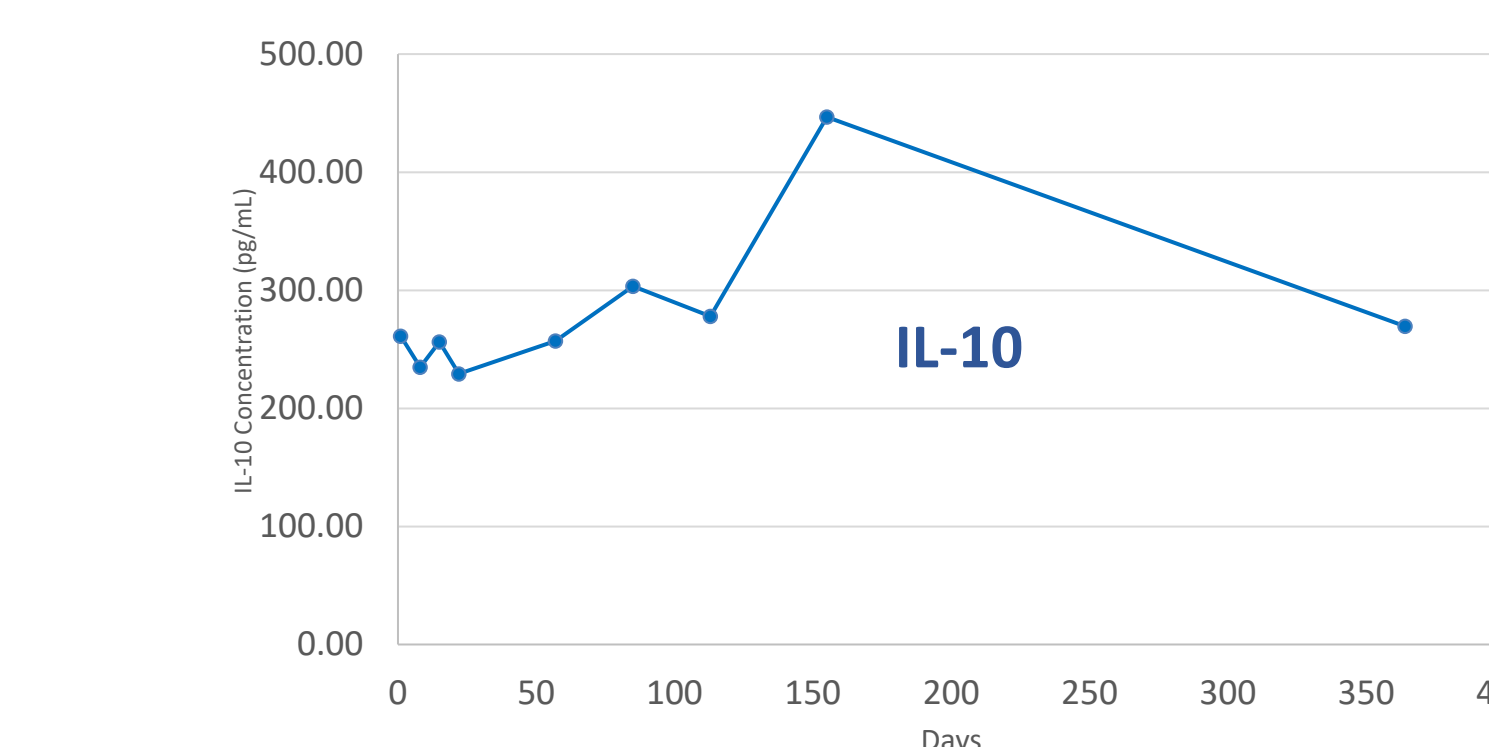
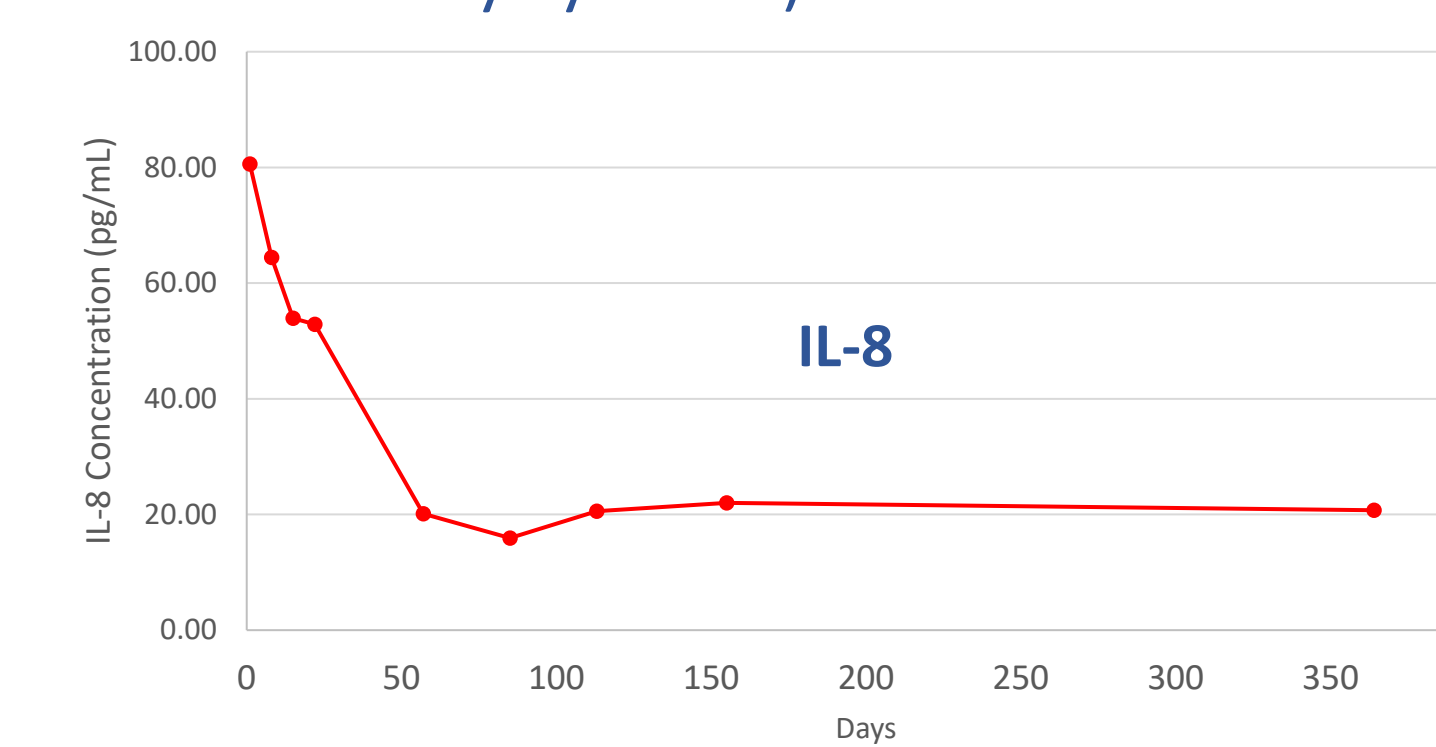
**Acknowledgement:** Patients who participated in the trials and their families, clinicians and staff at investigational sites, and Bexion personnel.

## Far fewer subjects halted oxaliplatin dosing due to G2/3 neuropathy when compared to RWE (Loprinzi 2014)

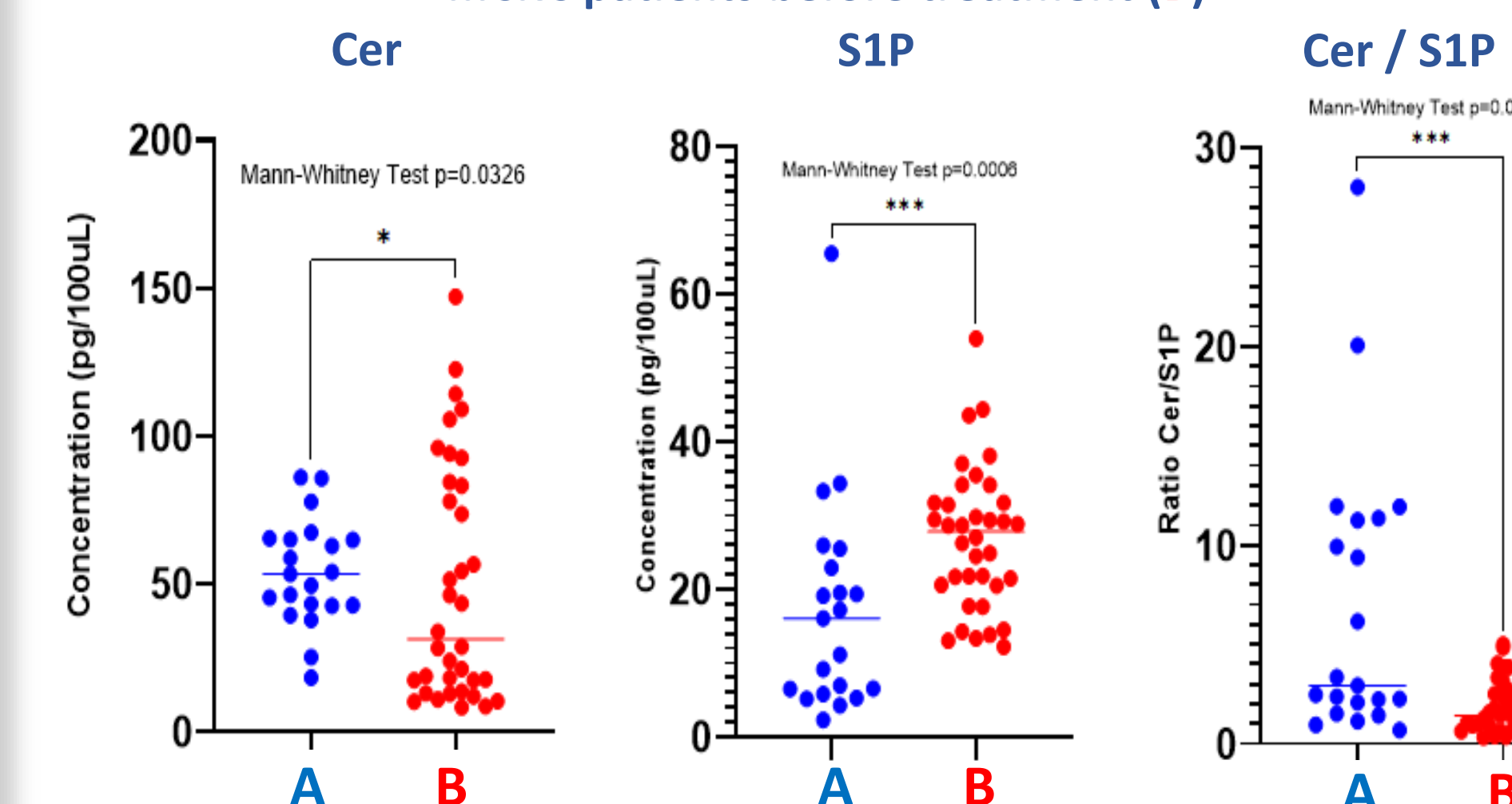


## 5. Plasma Biomarkers:

- Pro and anti-inflammatory cytokines: no longitudinal trends observed in cancer-free patients with chronic CIPN; significant changes in mCRC patients receiving BXQ-350: decrease in IL-8 (a pro-inflammatory cytokine) and increase in IL-10 (an anti-inflammatory cytokine)



## Ceramide (Cer) and S1P basal plasma levels are different between cancer-free patients with chronic CIPN (A) and mCRC patients before treatment (B)



## Changes in sphingolipid profiles after BXQ-350 appear to be different between cancer-free patients with chronic CIPN and mCRC patients

