

# BXQ-350 in combination with FOLFOX7 and bevacizumab: Evaluation of effect on oxaliplatin-induced CIPN—A phase 1b/2 trial to assess the efficacy and safety of BXQ-350, a first-in-class sphingolipid metabolism modulator, in newly diagnosed metastatic colorectal cancer



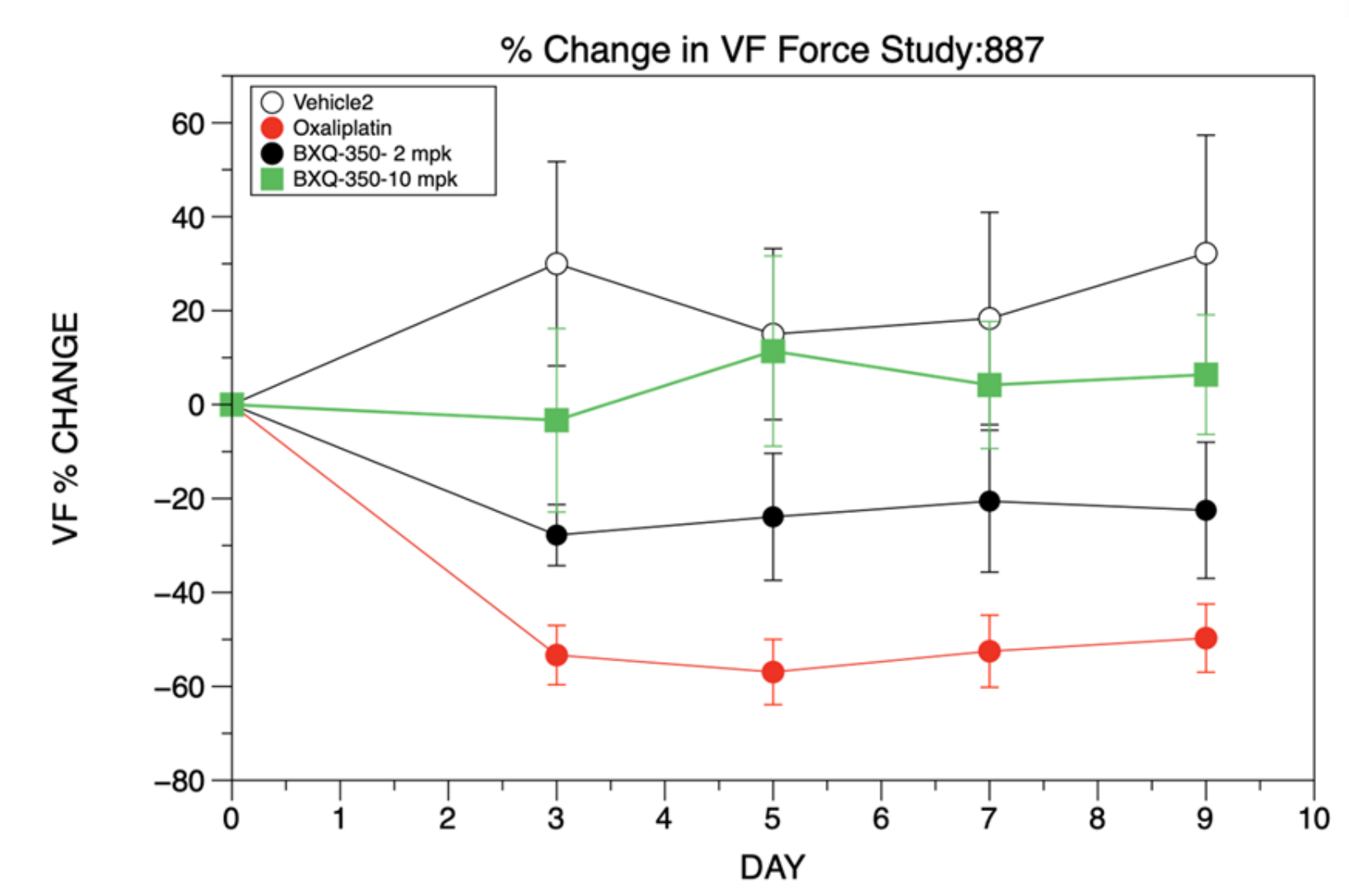
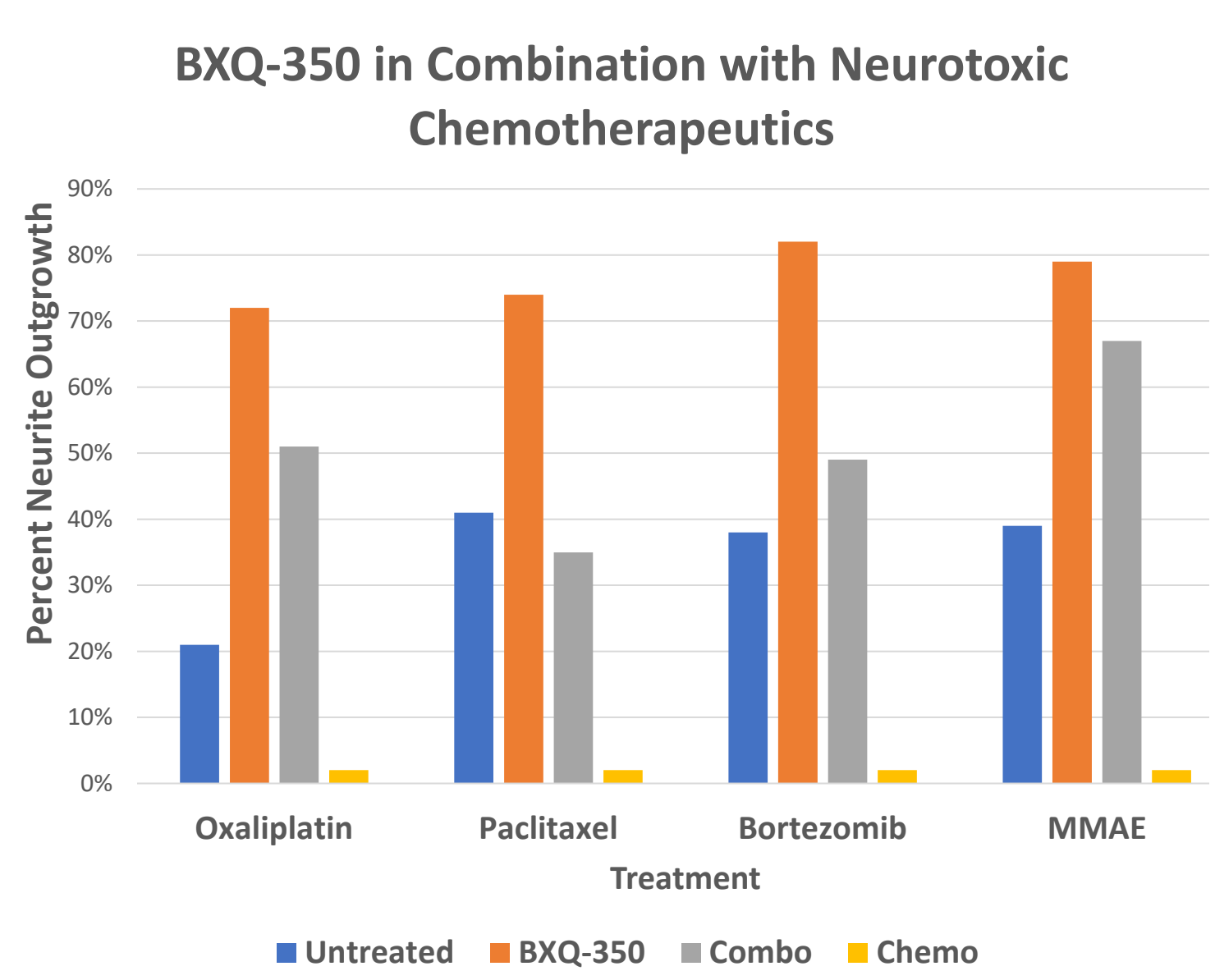
R. Patel<sup>1</sup>, D. Flora<sup>2</sup>, F. Lee<sup>3</sup>, A. Pimentel<sup>4</sup>, J. Gemmill<sup>5</sup>, D. Sohal<sup>6</sup>, V. Sharma<sup>7</sup>, S. Sharif<sup>8</sup>, N. Gabrail<sup>9</sup>, K. Chung<sup>10</sup>, J. Villano<sup>11</sup>, D. Outlaw<sup>12</sup>, A. Baron<sup>13</sup>, B. Boulmay<sup>14</sup>, G. Tapolsky<sup>15</sup>, J. Beach<sup>15</sup>, M. Gazda<sup>15</sup>, T. Arshad<sup>15</sup>

## 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 that severely impacts quality of life (QoL) and may require dose vacation, dose reduction or treatment interruption.
- **CIPN's pathology is complex** and not completely understood; preclinical and clinical data has shown **inflammatory (IL-6, IL-8, IL-10) and immune involvement as well as increased levels of sphingolipids**, a class of bioactive signaling molecules.
- **Dysregulated sphingolipid metabolism is associated with many diseases** including cancer, autoimmune, inflammatory, Gaucher and Parkinson diseases.

## 2. BXQ-350 Preclinical Data:

- Protects P12 neuronal cells from chemotherapeutic agents' neurotoxicity and promotes neurite growth at nanomolar concentrations
- Protects mice 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.

## 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 sphingolipid metabolism, **lowers S1P and increases ceramide levels**
- **Data in this trial and other trials show that BXQ-350 may prevent or 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
- **Potential biomarkers based on S1P & Cer for cancer, and NfL & cytokines for CIPN**

## 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/Diffuse Midline Glioma patients (NCT04771897)
- Phase 1 study of BXQ-350 in adult patients with advanced Solid Tumors (NCT02859857)

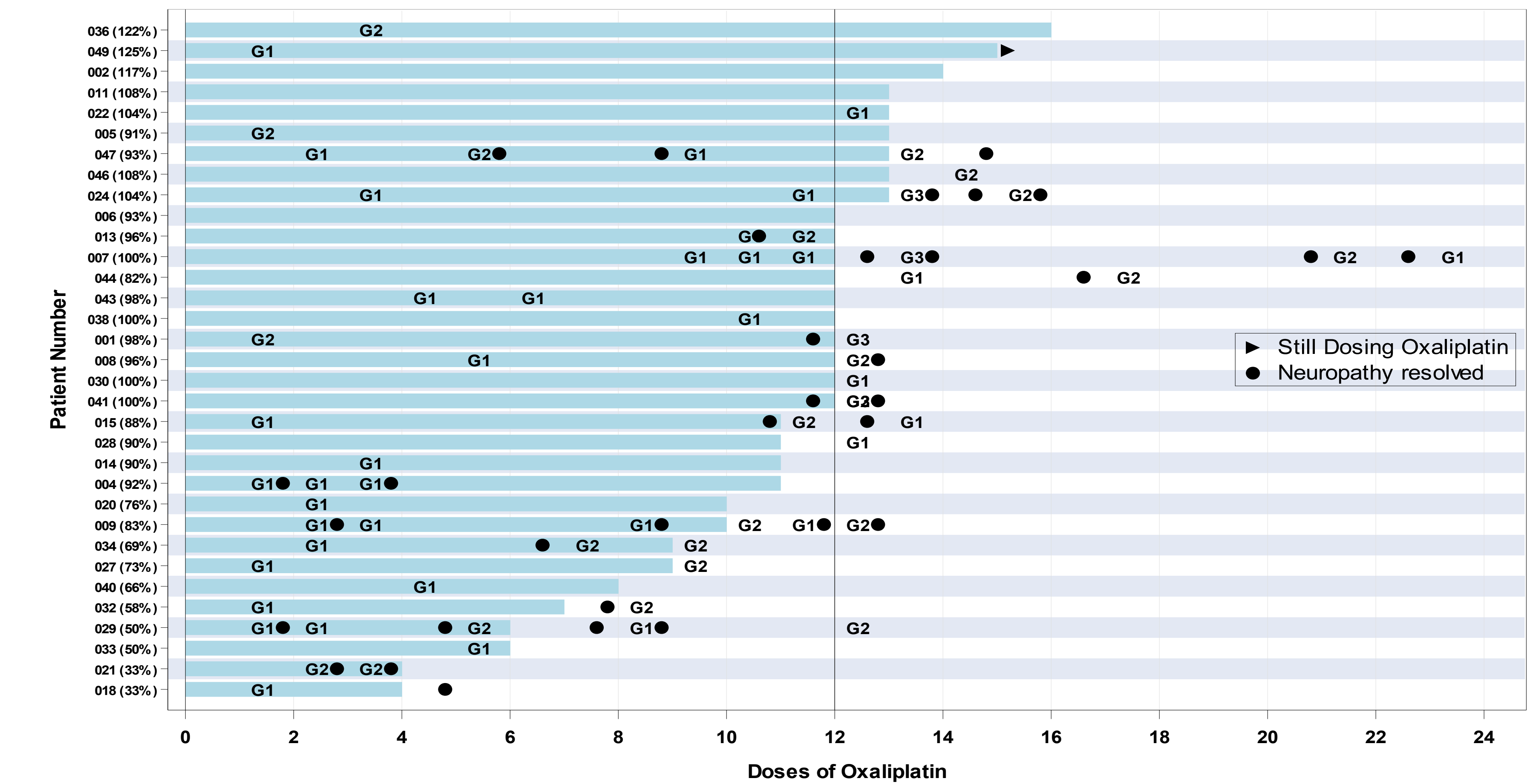
## Related Posters at ASCO GI 2026:

- **Trial in Progress: Abstract Number: TPS273 Poster Board Number: L7 Session Title: Trials in Progress Poster Session C: Cancers of the Colon, Rectum, and Anus**
- **Cancer Efficacy Results: Abstract Number: 242 Poster Board Number: K2 Session Title: Poster Session C: Cancers of the Colon, Rectum, and Anus**

The University of Kentucky, Lexington, KY<sup>1</sup> St Elizabeth Healthcare, Edgewood, KY<sup>2</sup> University of California, Irvine, CA<sup>3</sup> University of Miami, Miami, FL<sup>4</sup> Stony Brook University Hospital, New York, NY<sup>5</sup> University of Cincinnati, Cincinnati, OH<sup>6</sup> University of Louisville, Louisville, KY<sup>7</sup> University of Iowa, Iowa City, IA<sup>8</sup> Gabrail Cancer Center, Canton, OH<sup>9</sup> PRISMA Health Cancer Institute, Boiling Springs, SC<sup>10</sup> University of Kentucky Markey Cancer Center, Lexington, KY<sup>11</sup> University of Alabama at Birmingham, Birmingham, AL<sup>12</sup> Pacific Hematology Oncology, San Francisco, CA<sup>13</sup> Louisiana State University Health New Orleans, New Orleans, LA<sup>14</sup> Bexion Pharmaceuticals, Covington, KY<sup>15</sup>

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

## 4. Results: FOLFOX7 was co-administered with test article BXQ-350. Oxaliplatin Dosing Data with neuropathy grades and resolutions shown in the Figure, with data summary compared to Real World Evidence (RWE) in the tables below. Key findings are a reduction in incidence and delay in development of severe neuropathies, while enabling an increase in the total dose administered of oxaliplatin.



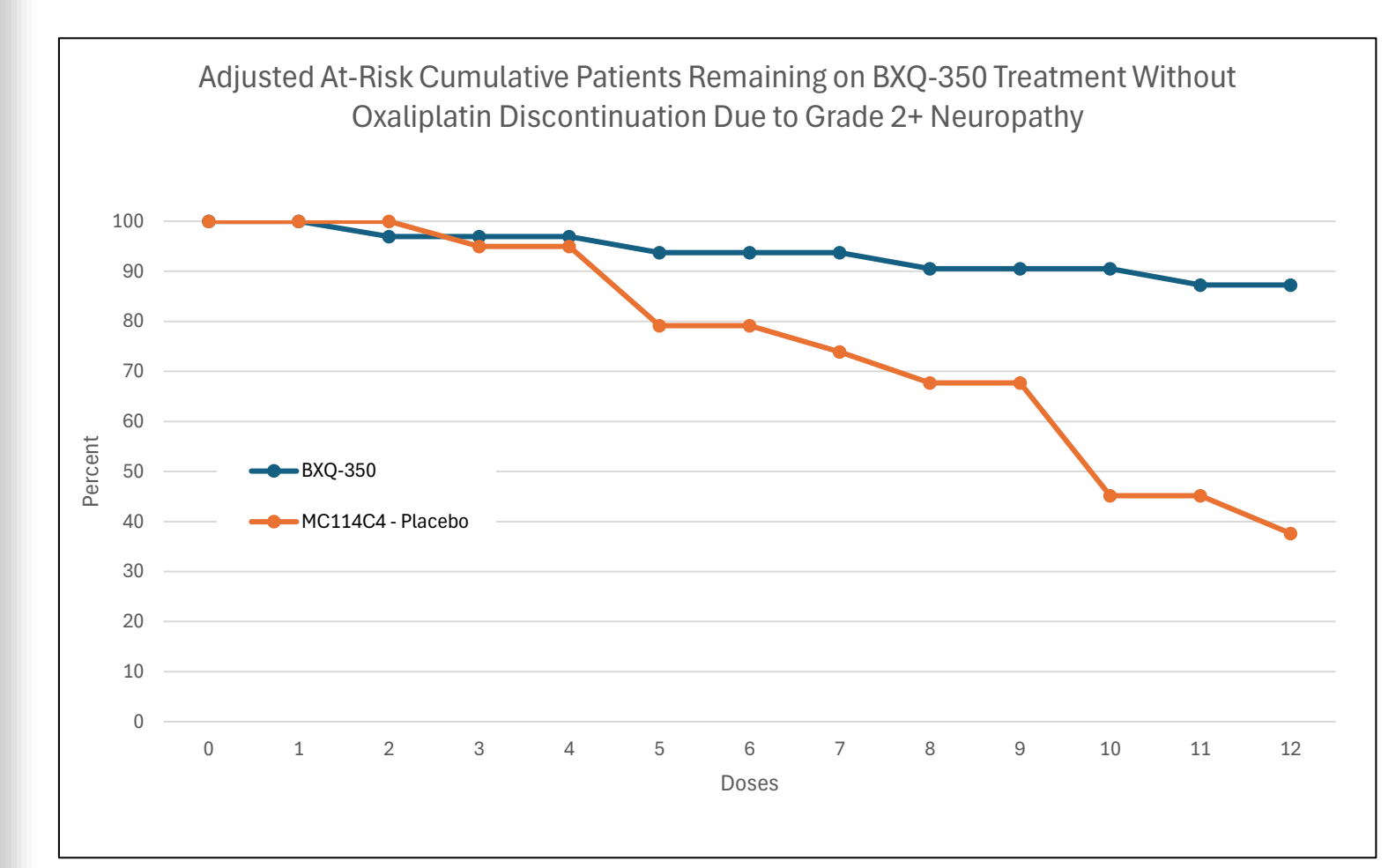
Study	% ≥6 Doses Oxali	% <6 Doses Oxali
TRIBE2	68	32
Bexion .AG	94	6

Cycles Dosed	% vs RWE
C8	85% vs 50%
C10	76% vs 25%
C12	58% vs 20%
>C12	27% vs 10%

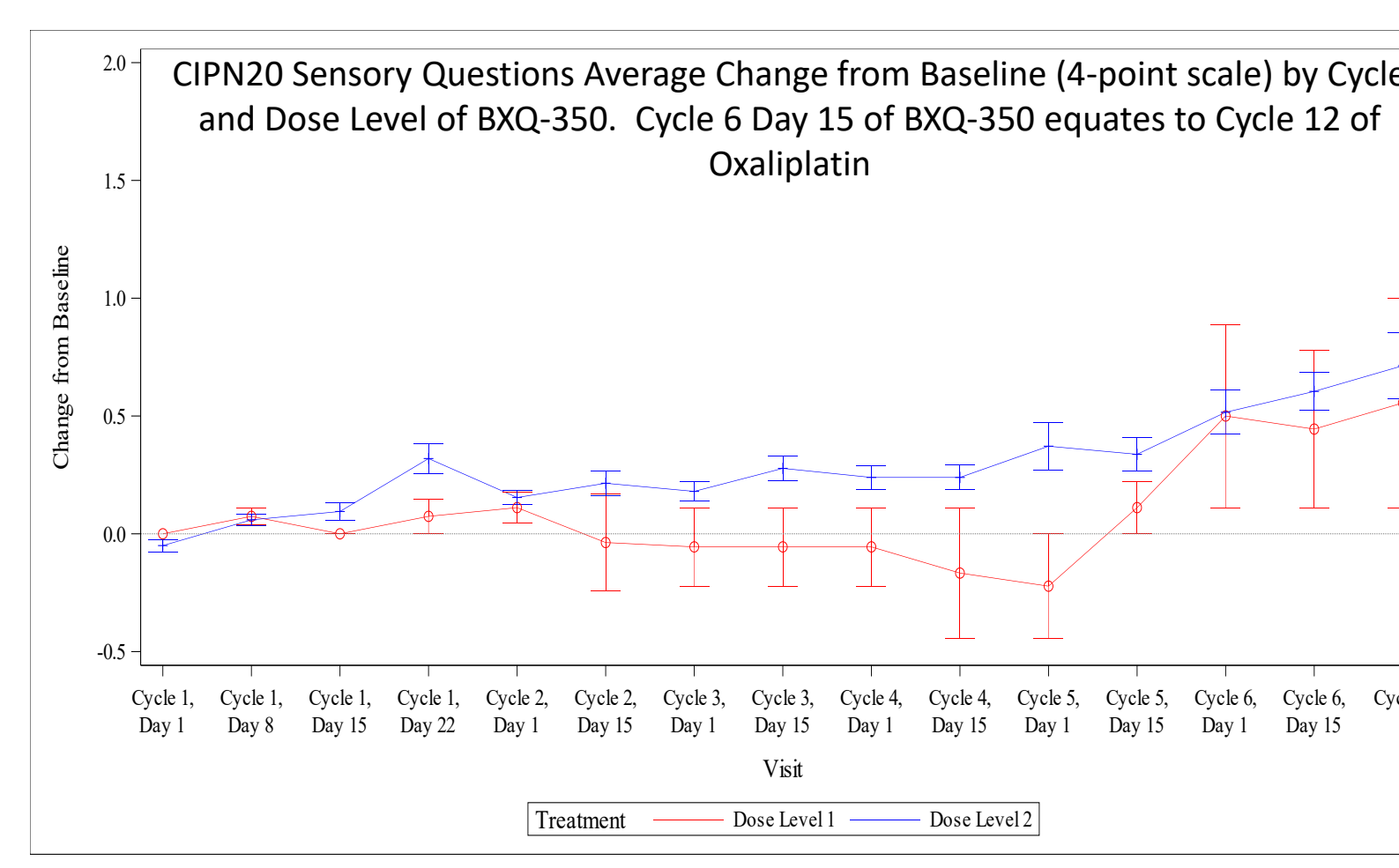
Grade CIPN	% vs RWE
G2	36% vs 50%
G3	12% vs 18%
C10 G2	28% vs 50%
C12 G3	6% vs 48%

RWE References: ELOXATIN® USPI, Giantonio 2007, Tsai 2016, Kang 2023, Weickhardt 2011, deGramont 2007, Loprinzi 2014, Cremolini 2020, 2025, Rivera, 2017 Saltz 2008

### Results: Compared to an RWE trial (Loprinzi 2014), far fewer subjects halted oxaliplatin dosing due to G2/3 neuropathy



### Results: CIPN20 Sensory scores increase by an average of only 0.5 out of a 4-point scale for subjects receiving FOLFOX7 plus BXQ-350



### Results: Plasma NfL levels tracked with PI graded neuropathy (biomarker potential) and show fewer G3 at C12 (6%), and later on-set vs RWE (\*Cersosimo 2004)

