CLINICAL TRIALS IN THE SPOTLIGHT


This year's Clinical Trials at the Summit was packed with pipeline therapeutics.

BY HANNAH KHAN, MSII, AND AAMIR A. AZIZ, MSIII

The third annual Clinical Trials at the Summit (CTS) meeting, held June 10, 2023, in Park City, Utah, brought together retina specialists and industry partners to discuss advances in clinical research and showcase novel ideas. Leaders Arshad M. Khanani, MD, MA; Peter K. Kaiser, MD; and Jeffrey S. Heier, MD, worked diligently to ensure the latest retinal research was on display. The unique panel format, led by world-class faculty and leaders in the retina space, formulated a collaborative and innovative environment (Figures 1-3).

WET AMD

Sophie J. Bakri, MD, MBA, shared that no safety concerns were noted at the primary endpoint in the DAVIO phase 1 study of vorolanib (EYP-1901, EyePoint Pharmaceuticals), a tyrosine kinase inhibitor delivered via the company's Durasert sustained delivery platform. Patients demonstrated a reduction in treatment burden at 12 months, and 35% of patients were free of supplemental injections at 12 months.

Thomas A. Ciulla, MD, MBA, chief medical advisor-retina and chair of the scientific advisory board at Clearside Biomedical, discussed a favorable safety profile with CLS-AX, the company's tyrosine kinase inhibitor, delivered suprachoroidally. He noted that patients in the higher dose cohorts demonstrated a 77% to 85% reduction in treatment burden.

Robert L. Avery, MD, presented the real-world TRUCKEE study evaluating the safety, efficacy, and durability of faricimab (Vabysmo, Genentech/Roche) in patients with wet AMD. He said that patients demonstrated significant visual and anatomical improvements following one and three injections of faricimab. The real-world results have shown the importance and benefit of dual inhibition, he added.

DELIVERY AND DEVICES

Dr. Khanani presented the 5-year results from the Portal study with the port delivery system (PDS) with ranibizumab (Susvimo, Genentech/Roche), stating that no new cases of endophthalmitis were documented, and the device was generally well-tolerated at 100 mg/mL with stable BCVA and central subfield thickness.

Shamika Gune, MD, MS, group medical director at Genentech, also presented on the PDS, sharing that no additional macular atrophy was noted with continued ranibizumab delivery when compared with monthly intravitreal injections of ranibizumab.

Image courtesy of Tawnie Baranick of T-ART photos

Figure 1. The 2023 "Summit of Excellence" Lifetime Achievement Award was presented to Robert Y. Kim, MD, chief medical officer at 4D Molecular Therapeutics. Pictured here (left to right) are Peter K. Kaiser, MD; Jeffrey S. Heier, MD; Dr. Kim; and Arshad M. Khanani, MD, MA.

Carlos Quezada-Ruiz, MD, discussed updates on the safety of the PDS, with an expected return in 2024.

Quan Dong Nguyen, MD, MSc, presented the suprachoroidal triamcinolone real-world study for uveitic macular edema, noting that patients gained 2 to 3 lines of vision with reduced retinal thickness.

Courtney M. Crawford, MD, discussed the new commercial processes for ABBV-RGX-314, Regenxbio's subretinal gene therapy for wet AMD and diabetic retinopathy (DR), noting that data show similar efficacy to the previous formulation.

DIABETIC EYE DISEASE

Michael A. Singer, MD, PhD, presented data from the PALADIN study and discussed the safety and consistency of the 0.19 mg fluocinolone acetonide intravitreal implant (Alimera Sciences) for diabetic macular edema. He also touched on the NEW DAY study comparing the implant with aflibercept (Eylea, Regeneron). Dr. Singer discussed treatment resistance and noted that faricimab should be introduced as an option prior to considering steroids.

David R. Lally, MD, presented on Ocuphire's ZETA-1 phase 2 trial of an oral DR therapy, which did not meet its primary endpoint. Still, no patients treated with APX3330

Image courtesy of Tawnie Baranick of T-ART photos

Figure 2. The 2023 CTS "Lifetime Achievement – Summit of Excellence Award" was presented to Daniel F. Martin, MD. Pictured here (left to right) are Jeffrey S. Heier, MD; Arshad M. Khanani, MD, MA; Pam Martin; Dr. Martin; and Peter K. Kaiser, MD.

had a binocular ≥ 3-step Diabetic Retinopathy Severity Score worsening from baseline compared with 16% of those treated with placebo (P = .04) after 24 weeks. The end-of-phase 2 meeting with the FDA is planned for Q4 2023.

GENE THERAPY

The conference boasted several updates on various gene therapy candidates, including 4D-150 (4D Molecular Therapeutics), presented by Veeral Sheth, MD, MBA. Intravitreal 4D-150 was found to be well-tolerated in the phase 1/2 PRISM study with the maintenance of visual acuity and anatomy in previously treated wet AMD patients with significant reduction in treatment burden.

Nadia K. Waheed, MD, MPH, chief medical officer for Beacon Therapeutics, discussed the company's gene therapy for X-linked retinitis pigmentosa, AGTC-501, with 3-month data from the SKYLINE study showing improvements in visual sensitivity.

NOVEL MECHANISMS OF ACTION

Ramanath Bhandari, MD, founder and interim chief executive officer for Revopsis, presented on RO-101, the company's surrogate antibody that targets ang-2 and VEGF-A. Initial data show that the therapeutic demonstrated superior binding affinity to ang-2 when compared with faricimab. Dr. Bhandari noted that RO-101 is undergoing safety/toxicology testing with first-in-human trials expected in 2024.

Eduardo Uchiyama, MD, presented the phase 1 DOVETAIL study of RG6179 (Genentech/Roche), a recombinant monoclonal antibody designed to inhibit IL-6 signaling. The

Image courtesy of Arshad M. Khanani, MD, MA

Figure 3. Fun at CTS 2023 with world-class faculty and leaders! Pictured here (left to right) are David S. Boyer, MD; Ramin Tadayoni, MD, PhD; Arshad M. Khanani, MD, MA; Jeffrey S. Heier, MD; Peter K. Kaiser, MD; Diana V. Do, MD; and SriniVas R. Sadda, MD.

therapy is generally well-tolerated, he said, showing improvements in vision and retinal thickness for up to 20 weeks.

Peter A. Campochiaro, MD, presented on an AAV vector-based gene therapy, EXG102-031 (Exegenesis Bio), stating that subretinal suppression of VEGF-A demonstrated decreased neovascularization and exudation.

FIRST TIME RESULTS

Dr. Khanani presented on OTX-TKI (Ocular Therapeutix), a bioresorbable implant with axitinib under investigation for the treatment of wet AMD, DR, and other retinal diseases. Initial data show that the therapy provided visual acuity and anatomical stability at 12 months.

Dr. Khanani also presented favorable data from the phase 3 DIAMOND study of OCS-01 (Oculis)—a topical formulation of dexamethasone—confirming the benefit of treatment for patients with diabetic macular edema. He noted that 25% of treated patients gained 3 lines by week 6 and 27.4% by week 12. In addition, patients saw a 63.6 µm reduction in central subfield thickness by week 6.

UNTIL NEXT TIME

We are looking forward to the innovation, collaboration, engagement, sponsorship, and support for CTS 2024! ■

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