Oricell Publishes Data from POLARIS Clinical Study Evaluating OriCAR-017 in the Treatment of RRMM

SHANGHAI, Jan. 31, 2023 - Oricell Therapeutics Co., Ltd (Oricell), an innovative pharmaceutical company committed to the development of clinical-stage oncology cell therapies, today announced publication of data from a clinical study evaluating the efficacy of OriCAR-017, an autologous GPRC5D-directed CAR-T cell therapy, in the treatment of relapsed/refractory multiple myeloma (RRMM) in an article entitled "Phase 1 Open-Label Single-Centre Single Arm Study of GPRC5D CAR T Cells(OriCAR-017) in Patients with Relapsed/Refractory Multiple Myeloma (POLARIS)" in The Lancet Haematology (2022 impact factor: 30.153).

Oricell releases the latest clinical data in The LANCET Haematology.

The POLARIS study, the first-in-human study of OriCAR-017, explores the safety, tolerability and preliminary anti-tumor efficacy for a single intravenous infusion of OriCAR-017 in patients with RRMM (NCT05016778). As of June 30, 2022, the study had showed exciting clinical results for OriCAR-017 in the treatment of 10 patients with RRMM:

Median follow-up time: 238 days (range: 99-345 days)

Safety: Dose-limiting toxicities (DLTs), serious adverse events (SAEs), neurotoxicity and deaths were not observed. The common treatment-emergent AEs were Grade 3 or 4 hematologic toxicities, including neutropenia, leukopenia, thrombocytopenia and anemia. Cytokine release syndrome (CRS) was observed in all patients (9 patients in G1 and one patient in G2).

Preliminary clinical efficacy: the study revealed an impressive 100% overall response rate, with 60% stringent complete response and 40% very good partial response. All patients (100%) achieved MRD negative (10-5/ml). Additionally, of the 5 patients who relapsed after BCMA CAR T-cell therapy, 2 achieved stringent complete response and 3 achieved very good partial response. At the date cut-off time, the mPFS (median progression-free survival) has not yet been reached; for the 2 patients who had disease progression, one with GPRC5D-positive while the other one with GPRC5D-negative.

“Advances in the treatment of R/RMM, including the introduction of immunomodulatory drugs, proteasome inhibitors and monoclonal antibodies as well as stem cell transplantation, have prolonged survival in R/RMM patients, the disease remains a clinically incurable plasma cell neoplasm,” said Prof. He Huang, Bone Marrow Transplantation Center, The First Affiliated Hospital, School of Medicine, Zhejiang University. “Nevertheless, almost all R/RMM patients eventually experience one or more relapses, with poorer survival outcomes for those with high-risk cytogenetic characteristics or refractory diseases. Data from our study showed that with extraordinary clinical efficacy, OriCAR-017 has been proved to be a novel, safe and effective therapy for patients with R/RMM, especially for those who experienced a relapse after receiving BCMA-targeted therapy. We are looking forward to continuously conducting follow-up clinical studies of OriCAR-017 in concert with Oricell.”

“OriCAR-017 has demonstrated 100% ORR and controllable safety in the POLARIS study, providing a solid foundation for Oricell’s subsequent registration of clinical studies,” stated Helen Yang, Chairman and CEO of Oricell. “The firm is in the process of submitting an application in the US and China for the registration of clinical studies of OriCAR-017 while advancing the therapy to critical phases of clinical research as soon as possible.”

About OriCAR-017

OriCAR-017, one of the key therapies developed by Oricell based on the company's two proprietary technology platforms OriAb and OriCAR, is a GPRC5D-targeted CAR T-Cell therapy used to treat relapsed/refractory multiple myeloma (RRMM).

In June 2022, Oricell announced data from Phase I POLARIS clinical trial conducted by investigators in China at the American Society of Clinical Oncology (ASCO) annual meeting for 2022. As of April 30, 2022, all evaluable data of the study had showed 100% ORR as well as 100% minimal residual disease (MRD) negative rate as measured by flow cytometry (10-5) at day 28 after infusion in all participators, including those who relapsed following the BCMA CAR-T therapy.

In October 2022, OriCAR-017 received Orphan Drug Designation from the U.S. Food and Drug Administration for the treatment of RRMM.

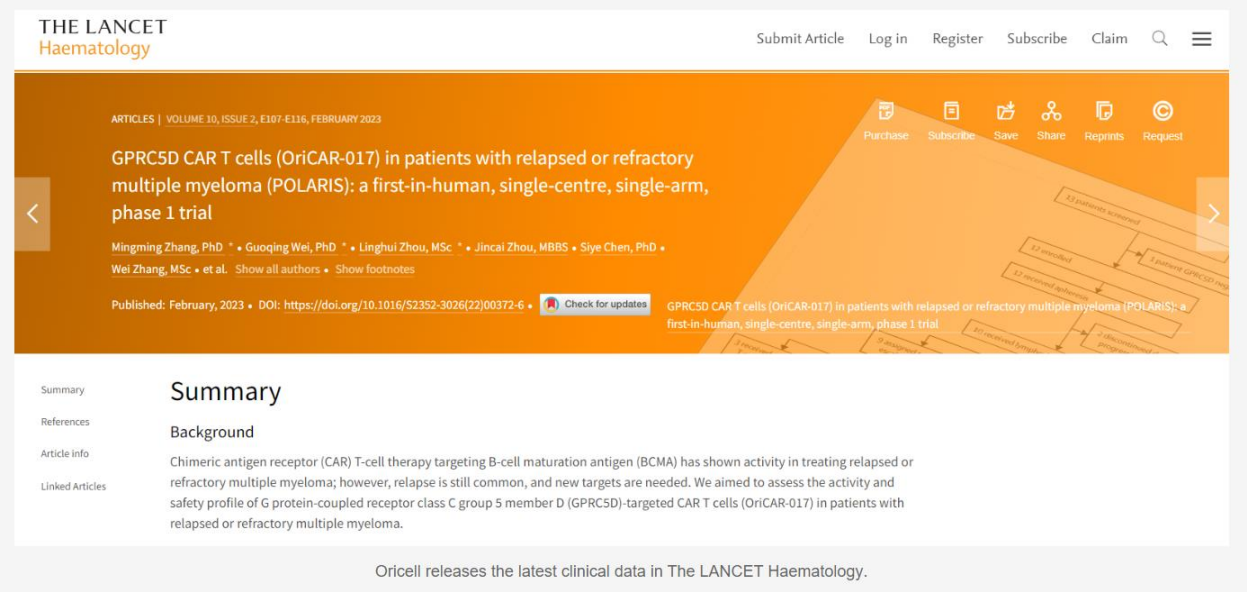
Currently, the company is accelerating the registration of the therapy in both China and the US.

About Multiple Myeloma

Multiple myeloma (MM), one of the most common blood cancers, is a malignant disease of abnormal proliferation of clonal plasma cells. For newly treated MM patients, commonly used first-line treatment drugs include proteasome inhibitors, immunomodulatory drugs and alkylating agents. For most patients, the commonly used first-line treatments can stabilize the patient's condition for 3-5 years, but a small number of patients show primary drug resistance at initial treatment, and the disease cannot be effectively controlled. Most of the newly treated patients with effective treatment will inevitably enter the relapse and refractory stage after the stable disease period. Therefore, there is still an unmet clinical need for patients with relapsed/refractory multiple myeloma. In the United States, MM accounts for nearly 2% of all new cancer cases and more than 2% of cancer deaths. (For more information, see https://pubmed.ncbi.nlm.nih.gov/33498356/)

《柳叶刀血液学》：原启生物 GPRC5D CAR-T 治疗 R/RMM 临床数据公布

中国上海 2023 年 1 月 31 日，原启生物，一家致力于肿瘤免疫治疗细胞产品处于临床阶段的创新药企，今日宣布公司自主的靶向 GPRC5D 的 CAR-T 细胞产品 OriCAR-017 治疗复发难治多发性骨髓瘤（RRMM）的临床研究数据在《Lancet Haematology》上发表（2022 年影响因子：30.153）题为“GPRC5D CAR T cells (OriCAR-017) in patients with relapsed or refractory multiple myeloma (POLARIS): a single-centre, single-arm phase 1 trial”。



Oricell releases the latest clinical data in The LANCET Haematology.

POLARIS 研究是 OriCAR-017 的首次人体研究，旨在探索单次静脉输注 OriCAR-017 在复发难治多发性骨髓瘤患者的安全性，耐受性和初步的抗肿瘤作用（NCT05016778）。到截止日期（2022 年 6 月 30 日）结果显示，在 10 例复发难治多发性骨髓瘤患者中，POLARIS 研究显示了 OriCAR-017 在治疗复发难治多发性骨髓瘤患者令人兴奋的临床获益:

中位随访时间 238 天 （范围：99，345 天）

安全性：无剂量限制性毒性（DLT），无严重不良事件（SAE）和死亡病例报道，常见≥3 级的不良反应主要是血液系统的毒性，包括中性粒细胞计数降低、白细胞计数降低，血小板计数降低和

贫血。所有患者均发生了细胞因子风暴（CRS），其中 9 例为 I 级，1 例为 2 级 CRS。无神经毒性报道。

临床初步疗效：

总体反应率（ORR）100%，其中 6 例达严格意义的完全缓解（sCR），4 例达非常好的部分缓解（VGPR）。

5 例 BCMA CART 细胞复发的患者中，2 例达严格意义的完全缓解（sCR），3 例达非常好的部分缓解（VGPR）。100%的患者达到 MRD 10^{-5} 阴性（28 天评估）。

中位无进展生存期（mPFS）尚未达到。到截止日期为止，2 例患者出现疾病进展，其中 1 例为 GPRC5D 阳性进展，另一例为 GPRC5D 阴性进展。

浙江大学附属第一医院骨髓移植中心黄河教授表示：复发难治多发性骨髓瘤临床上仍然是一种无法治愈的浆细胞恶性肿瘤。治疗方面的进展（包括免疫调节药物、蛋白酶体抑制剂和单克隆抗体的引入，以及干细胞移植）延长了患者生存期。然而，几乎所有患者最后均会复发，且具有高危细胞遗传学特征或患难治性疾病的患者的生存结局较差。我们的研究数据显示 OriCAR-017 对于复发难治多发性骨髓瘤是一个非常安全和有效的新的治疗手段，特别是针对 BCMA 靶向治疗失败的病人，其展示临床疗效令人非常振奋，期待与原启生物一同继续开展 OriCAR-017 的后续临床研究。

原启生物董事长杨焕凤表示：OriCAR-017 在 POLARIS 研究中观察到 100%ORR 以及可控的安全性为原启生物后续的注册临床研究提供了扎实的基础。原启生物计划正式提交 OriCAR-017 在中国和美国的注册临床研究申请，尽快尽早将 OriCAR-017 推进至关键临床研究阶段。

关于 OriCAR-017

OriCAR-017 是原启生物基于 OriAb 和 OriCAR 两个自主研发技术平台开发的核心产品之一，靶向 GPRD5D 的嵌合抗原受体 T 细胞治疗用于治疗复发/难治性多发性骨髓瘤（R/R MM）。

在 2022 年 6 月 2022ASCO 年会，原启生物口头报告了由研究者在中国开展的临床 I 期 POLARIS 临床试验数据。 截止 2022 年 04 月 30 日，所有可评估数据显示 ORR 100%，MRD 10^{-5} 阴性率 100%（28 天评估），包括既往 BCMA CAR-T 治疗失败的受试者在内的所有受试者。

2022 年 10 月，OriCAR-017 获美国 FDA 授予“孤儿药”资格，用于治疗复发难治性多发性骨髓瘤。

目前，公司正在加速推进该产品的中美双报工作。

关于多发性骨髓瘤 (MM)

多发性骨髓瘤（MM）是最常见的血液癌症之一，是一种克隆性浆细胞异常增殖的恶性疾病。对于初治的多发性骨髓瘤患者，常用的一线治疗药物包括蛋白酶体抑制剂、免疫调节类药物及烷化剂类药物。对于大多数的患者，常用的一线治疗可以使患者的病情稳定 3-5 年，但也有少部分患者在初治时表现为原发耐药，病情不能得到有效控制。对于治疗有效的大多数初治患者，在经过疾病稳定期后也会不可避免的进入复发、难治阶段。因此，复发/难治多发性骨髓瘤患者仍存在未满足的需求。在美国，MM 约占所有新发癌症患者人数近 2%，占癌症死亡患者人数的 2%以上。更多信息见：https://pubmed.ncbi.nlm.nih.gov/33498356/