Letter to Shareholders

Dear Shareholder,

As I reflect on the past year, I'm proud of our team's dedication to advancing the Company's goals while facing head-on the challenges associated with the COVID-19 global pandemic. Our team's commitment has truly been unparalleled during this time.

Despite these unprecedented times, I firmly believe this was a pivotal year in our Company's history as we worked to further unlock the full potential of allogeneic CAR T therapy with learnings that we will take into 2021.

A Focused Strategy Committed to Patients

Our journey continues as we follow our mission to bring new and innovative CAR T therapies to cancer patients with poor prognosis. This commitment to cancer patients and the advancements across our development pipeline of next-generation CAR T programs were major drivers behind rebranding the Company to Celyad Oncology, which we announced in the first half of 2020. We believe this change more accurately reflects our team's expertise in developing innovative cell therapies against hard-to-treat cancers. In addition, our focus and drive speak directly to our position as a leader in the CAR T cell therapy industry.

With several assets in our pipeline entering 2020, we completed a strategic review of our programs and decided to prioritize the clinical development of our allogeneic CAR T therapies. Importantly, we still firmly believe that autologous CAR T cell therapies will play an important role in the treatment of cancers, and we continue to pursue the development of our autologous candidate CYAD-02.

We believe the future of allogeneic CAR T therapies provides greater potential to address broader markets by tackling challenges in treating solid tumors while also expediting and expanding patient access to novel treatment options. Also, the strategic shift towards allogeneic candidates allows for the Company to more efficiently allocate our resources and capital to deliver on important milestones across multiple differentiated product candidates in 2021.

Celyad Oncology is committed to delivering innovative immunotherapies to patients with advanced cancer seeking novel treatment options

Eliminate Cancer. Improve Life.

2020 Highlights – Driving Science into the Clinic

One of my goals as CEO has been to heighten awareness and elevate recognition for our differentiated approach to developing novel CAR Ts, including use of our proprietary technology platforms. The team has continued to successfully deliver on this objective by providing a stream of data announcements over the past few years at major scientific and medical conferences as well as highlighting key developments of our pipeline through our R&D days.

Looking ahead, we have several key clinical milestones expected throughout 2021 as we continue to ramp up our non-gene edited allogeneic CAR T programs CYAD-101 and CYAD-211, while we further delve into CYAD-02's potential.

Leading CAR T Development in Solid Tumors

The past year we've continued to advance our lead allogeneic program CYAD-101 for the treatment of metastatic colorectal cancer (mCRC), a devastating disease and historically, a difficult indication for immunotherapies. Colorectal cancer is the third most diagnosed cancer worldwide and has the fourth highest mortality rate of cancer deaths. There is a high unmet need for novel therapies for those with mCRC and we are working hard to address these late-stage patients who have no other options.

In December 2020, we started dosing patients in the expansion cohort of the alloSHRINK trial which evaluates CYAD-101 following FOLFIRI preconditioning chemotherapy at the recommended dose of one billion cells per infusion. This clinical program was the first to generate evidence of clinical activity for an allogeneic CAR T investigational therapy in any solid tumor indication, a major challenge for the industry. To date, we've seen encouraging data showing an improvement in median overall survival and median progression free survival, the gold standards for assessing treatments of mCRC, as compared to historical treatments. We look forward to potentially building upon these positive clinical data for CYAD-101 in patients with mCRC and expect to announce preliminary data from the expansion cohort during the first half of 2021.

In addition, later this year, in collaboration with MSD, a subsidiary of Merck & Co., we plan to initiate the Phase 1b KEYNOTE-B79 trial which will evaluate CYAD-101 with MSD's anti-PD-1 therapy, KEYTRUDA® (pembrolizumab), in refractory mCRC patients with microsatellite stable (MSS) / mismatch-repair proficient (pMMR) disease. We believe the mechanism of actions of CYAD-101 and KEYTRUDA® may be highly complementary and could help to drive meaningful clinical benefit in patients.

We also believe there are other opportunities to further assess CYAD-101's potential clinical activity in mCRC, as well as with other challenging indications.

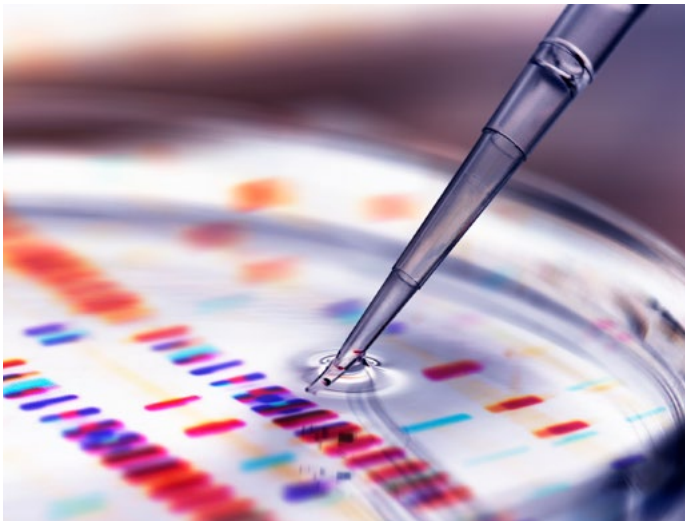
shRNA Packs Single Punch for Multiple Knockdowns

Over the past few quarters, we've made great progress with our proprietary short hairpin RNA (shRNA) technology platform, which we moved from concept to clinic in just two years.

In November 2020, we dosed the first patient in the Phase 1 IMMUNICY-1 trial evaluating the safety and efficacy of our first shRNA-based CAR T candidate CYAD-211, an anti-BCMA allogeneic cell therapy for the treatment of relapsed/refractory multiple myeloma (r/r MM). We expect this trial to establish that allogeneic CAR T cells using shRNA technology can generate clinical benefit without inducing graft-versus-host disease (GvHD).

Preclinical data generated to date for CYAD-211 supports its further development. Early evidence of anti-tumor activity has been observed with no demonstrable evidence of GvHD. We've also demonstrated the ability to multiplex with the shRNA technology platform, which allows us to knockdown multiple targets of interest simultaneously.

Preclinical data for the program has been encouraging and we hope to see this translate in the clinic. Initial proof-of-concept data from the IMMUNICY-1 trial are expected to be announced in the first half of 2021.



Update on Autologous Candidats for r/r AML and MDS

At last year's American Society of Hematology meeting, we announced initial clinical data from CYAD-02, our next-generation autologous candidate that incorporates shRNA technology to target the NKG2D ligands MICA and MICB. CYAD-02 is currently being evaluated for safety and efficacy in the dose escalation Phase 1 CYCLE-1 trial for the treatment of r/r acute myeloid leukemia (AML) and myelodysplastic syndrome (MDS) patients following preconditioning chemotherapy.

Preliminary clinical data from the ongoing CYCLE-1 study have shown anti-leukemic activity in four of seven r/r AML/MDS patients evaluable for clinical activity, including an objective marrow complete remission (mCR) in the first patient enrolled at the highest dose level.

Overall, we continue to believe there is a high unmet need for patients with r/r AML and MDS and we plan to further assess CYAD-02's differentiated profile and potentially seek collaborative partnerships that could assist in driving the clinical development of the autologous candidate.

2021 Vision – A Focus on Allogeneic CAR T Therapies for Oncology

Looking ahead, we plan on building upon our position as a leader in the CAR T industry by strategically focusing on the development of our next-generation allogeneic cell therapies. Our investigational allogeneic cell therapies are underpinned by two proprietary technologies, specifically our TIM (TCR Inhibitory Molecule) and our innovative shRNA technology platform, while leveraging our streamlined All-in-One Vector approach.

Using a non-gene edited approach allows our allogeneic programs to avoid the need for multiple genetic modifications and enrichment steps, while minimizing costs associated with unnecessary GMP grade materials.

Celyad Oncology appreciates the long-lasting support of our shareholders. We are committed to the research and development of innovative CAR T candidates and are excited to enter an extremely data-rich calendar year for the Company. For the first half of 2021, we expect to:

- Report preliminary data from the expansion cohort of Phase 1 alloSHRINK trial for CYAD-101 for mCRC
- Initiate the Phase 1b KEYNOTE-B79 trial evaluating CYAD-101 with KEYTRUDA® in mCRC patients with MSS/pMMR disease
- Report proof-of-concept data on shRNA technology as an allogeneic platform from the initial dose cohorts of the Phase 1 IMMUNICY-1 trial of CYAD-211 for r/r MM
- Announce additional data from the Phase 1 CYCLE-1 trial of CYAD-02 for r/r AML and MDS

On behalf of the entire Celyad Oncology team and board members, I wish you and your loved ones a happy, healthy and fulfilling 2021!

Regards,

FILIPPO PETTI
Celyad Oncology CEO

Financial Calendar for 2021
March 24th - FY 2020 Financial Results
May 6th - Q1 2021 Financial Results
August 4th - H1 2021 Financial Results
November 10th - FY 2020 Financial Results

More information at:
www.celyad.com

More information for shareholders at:
www.celyad.com/investors

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