Tyra Biosciences Receives IND Clearance from FDA to Proceed with Phase 2 Study of TYRA-300 in Pediatric Achondroplasia (BEACH301)

– TYRA-300 is the first oral FGFR-3 selective inhibitor to be well-tolerated in clinical studies –

– First child with achondroplasia expected to be dosed in Q1 2025 –

CARLSBAD, Calif., Oct. 28, 2024 /PRNewswire/ -- Tyra Biosciences, Inc. (Nasdaq: TYRA), a clinical-stage biotechnology company focused on developing next-generation precision medicines that target large opportunities in Fibroblast Growth Factor Receptor (FGFR) biology, announced today that the U.S. Food and Drug Administration (FDA) cleared its Investigational New Drug (IND) application for TYRA-300 allowing the company to proceed with a Phase 2 clinical trial of TYRA-300 for children with achondroplasia (BEACH301).

TYRA-300 is a potential first-in-class, investigational, oral, FGFR3-selective inhibitor designed to avoid the toxicities associated with inhibition of FGFR1, FGFR2 and FGFR4. TYRA-300 is also being evaluated for metastatic urothelial cancer in the ongoing SURF301 study, where interim clinical proof-of-concept data were recently reported at the ENA 2024 meeting.

"IND clearance to proceed with BEACH301 is a significant milestone for the achondroplasia community and for TYRA, as we move into the clinic to treat our first rare skeletal dysplasia indication," said Todd Harris, CEO of TYRA. "We believe FGFR3 is the right target for achondroplasia, with almost one hundred percent of cases being driven by a specific mutation in the *FGFR3* gene. TYRA-300 has the potential to precisely engage FGFR3 to potentially achieve a higher annualized growth velocity, and lead to important functional outcomes and clinical benefits such as improvements in reach, gait and spinal disease."

Mr. Harris continued, "The currently available therapy is a once-daily injection that delivers modest increases in annualized growth velocity. As a highly selective FGFR3 inhibitor, we are hopeful that TYRA-300 may provide an improved therapeutic option for achondroplasia, and we are excited about our opportunity to potentially deliver improvements with our differentiated oral therapy in BEACH301."

BEACH301 will be a Phase 2, multicenter, open-label, dose-escalation/dose-expansion study evaluating TYRA-300 in children ages 3 to 10 with achondroplasia with open growth plates. The study will enroll children who are treatment-naïve (Cohort 1) and those who have received prior growth-accelerating therapy (Cohort 2) at multiple sites across the globe. Each of these cohorts is expected to enroll up to 10 participants per dose level (0.125, 0.25, 0.375, 0.50 mg/kg) for up to 12 months. Prior to initiation of Cohorts 1 and 2, the study will enroll a safety sentinel cohort of up to 3 treatment-naïve participants per dose level in children ages 5 to 10.

The primary objectives of this study will be to assess safety and tolerability in children with achondroplasia and evaluate change from baseline in annualized growth velocity to determine the dose(s) for further development. Secondary objectives will include evaluating change from baseline in height z-score, proportionality and pharmacokinetics (PK). TYRA is also planning exploratory assessments of clinical outcomes such as functional improvements, changes in the spine, and quality of life measures.

"We are excited to expand the clinical development of TYRA-300 into achondroplasia with BEACH301. Our existing database from the SURF301 oncology study includes information on doses significantly higher than what we are planning in achondroplasia. We believe this information suggest TYRA-300 may be well tolerated at low doses in children," said Doug Warner, MD, Chief Medical Officer of TYRA. "We are continuing to engage with the achondroplasia community, including advocates and physicians, as we actively work to initiate the BEACH301 study and commence dosing in the first quarter of 2025."

In July 2023 and January 2024, the FDA granted Orphan Drug Designation (ODD) and Rare Pediatric Designation (RPD) to TYRA-300, respectively, for the treatment of achondroplasia. TYRA is committed to exploring the potential of TYRA-300 for functional impacts and quality of life measures in achondroplasia, hypochondroplasia and other skeletal dysplasia.

About TYRA-300

TYRA-300 is the Company's lead precision medicine program stemming from its in-house SNÅP platform. TYRA-300 is an investigational, oral, FGFR3-selective inhibitor currently in development for the treatment of cancer and skeletal dysplasia, including achondroplasia and hypochondroplasia. In oncology, TYRA-300 is being evaluated in a multi-center, open label Phase 1/2 clinical study, SURF301 (**S**tudy in **U**ntreated and **R**esistant **F**GFR3+ Advanced Solid Tumors) (NCT05544552). The study

is designed to determine the optimal and the recommended Phase 2 dose (RP2D) of TYRA-300, as well as to evaluate the preliminary antitumor activity of TYRA-300. Part A of the study included patients with all solid tumors who are FGFR3 +/-, and explored doses of TYRA-300 ranging from 10mg -120mg once-daily (QD). Part A of SURF301 is complete. The Company continues to advance TYRA-300 through dose expansion in Part B, which includes patients with solid tumors who are FGFR3^{+}, to evaluate potentially therapeutic doses in preparation for potential future Phase 2 studies in metastatic urothelial carcinoma and non-muscle invasive bladder cancer. In skeletal dysplasia, TYRA-300 has demonstrated positive preclinical results in achondroplasia and hypochondroplasia and TYRA has received IND clearance from the U.S FDA to proceed with its BEACH301 clinical trial in children with achondroplasia.

About Achondroplasia

Achondroplasia is the most common form of dwarfism with limited therapeutic options. It is estimated that 1 in 15,000 to 40,000 children are born have achondroplasia, with approximately 250,000 affected individuals worldwide. People living with achondroplasia may experience severe complications including foramen magnum and spinal stenosis, sleep apnea and disproportionate short stature. An *FGFR3* G380R gain of function mutation accounts for approximately 99% of achondroplasia. TYRA-300 is a first-in-class oral FGFR3 selective inhibitor whose design may have a meaningful impact on achondroplasia and other skeletal dysplasia.

About Tyra Biosciences

Tyra Biosciences, Inc. (Nasdaq: TYRA) is a clinical-stage biotechnology company focused on developing next-generation precision medicines that target large opportunities in FGFR biology. The Company's in-house precision medicine platform, SNÅP, enables rapid and precise drug design through iterative molecular SNÅPshots that help predict genetic alterations most likely to cause acquired resistance to existing therapies. TYRA's expertise in FGFR biology has created a differentiated pipeline with three clinical-stage programs in targeted oncology and genetically defined conditions. The Company's lead precision medicine stemming from SNÅP, TYRA-300, is a potential first-in-class selective FGFR3 inhibitor that is designed to avoid the toxicities associated with inhibition of FGFR1, FGFR2 and FGFR4, while being agnostic for the FGFR3 gatekeeper mutations. TYRA-300 is in development for the treatment of cancer in the SURF301 Phase 1/2 study and for achondroplasia in the BEACH301 Phase 2 study. TYRA is also developing TYRA-200, an investigational, FGFR1/2/3 inhibitor, in the SURF201 study for metastatic intrahepatic cholangiocarcinoma, and TYRA-430, an investigational FGFR4/3-biased inhibitor for FGF19^{+}/FGFR4-driven cancers. TYRA is based in Carlsbad, CA.

For more information about our science, pipeline and people, please visit www.tyra.bio and engage with us on LinkedIn.

Forward-Looking Statements

TYRA cautions you that statements contained in this press release regarding matters that are not historical facts are forward-looking statements. The forward-looking statements are based on our current beliefs and expectations and include, but are not limited to: expected initiation of the BEACH301 study and the timing thereof; the design and goals of the BEACH301 study; the potential to develop next-generation precision medicines and the potential safety and therapeutic benefits of TYRA-300; the continued evaluation of TYRA-300 in SURF301; and the potential for SNÅP to develop therapies in targeted oncology and genetically defined conditions. Actual results may differ from those set forth in this press release due to the risks and uncertainties inherent in our business, including, without limitation: later developments with the FDA may be inconsistent with prior feedback from the FDA, including with respect to the proposed initiation and design of our planned Phase 2 study of TYRA-300 in achondroplasia; we are early in our development efforts, have only recently begun testing TYRA-300 and TYRA-200 for oncology in clinical trials and the approach we are taking to discover and develop drugs based on our SNÅP platform is novel and unproven and it may never lead to product candidates that are successful in clinical development or approved products of commercial value; potential delays in the commencement, enrollment, data readouts and completion of preclinical studies and clinical trials; results from preclinical studies or early clinical trials not necessarily being predictive of future results; interim results of a clinical trial are not necessarily indicative of final results and one or more of the clinical outcomes may materially change as patient enrollment continues, following more comprehensive reviews of the data, as follow-up on the outcome of any particular patient continues and as more patient data becomes available, including the risk that unconfirmed responses may not ultimately result in confirmed responses to treatment after follow-up evaluations; the potential for proof-of-concept results to fail to result in successful subsequent development of TYRA-300; our dependence on third parties in connection with manufacturing, research and preclinical testing; acceptance by the FDA of INDs or of similar regulatory submissions by comparable foreign regulatory authorities for the conduct of clinical trials of TYRA-300; an accelerated development or approval pathway may not be available for TYRA-300 or other product candidates and any such pathway may not lead to a faster development process;; unexpected adverse side effects or inadequate efficacy of our product candidates that may limit their development, regulatory approval, and/or commercialization; the potential for our programs and prospects to be negatively impacted by developments relating to our competitors, including the results of studies or regulatory determinations relating to our competitors; unfavorable results from preclinical studies; we may not realize the benefits associated with ODD, including that orphan drug exclusivity may not effectively protect a product from competition and that such exclusivity may not be maintained, or from the RPD Designation, including receipt of a Priority Review Voucher or any value therefrom; regulatory developments in the United States and foreign countries; our ability to obtain and maintain intellectual property protection for our product candidates and proprietary technologies; and other risks described in our prior filings with

the Securities and Exchange Commission (SEC), including under the heading "Risk Factors" in our annual report on Form 10-K and any subsequent filings with the SEC. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof, and we undertake no obligation to update such statements to reflect events that occur or circumstances that exist after the date hereof. All forward-looking statements are qualified in their entirety by this cautionary statement, which is made under the safe harbor provisions of the Private Securities Litigation Reform Act of 1995.

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