

Faheem Hasnain joins Kura Oncology's Board of Directors

April 27, 2015

LA JOLLA, April 27, 2015 – Kura Oncology, Inc. ("Kura Oncology" or the "Company"), a clinical stage biopharmaceutical company advancing a pipeline of precision medicines for the treatment of solid tumors and blood cancers, today announced the appointment of Faheem Hasnain to the Company's board of directors.

Mr. Hasnain brings more than 20 years of experience in the pharmaceutical and biotechnology industries, with executive leadership and board roles at leading public companies, including Receptos, Ambit, Facet Biotech Corporation, PDL BioPharma, Biogen Idec, Bristol Myers-Squibb and GlaxoSmithKline.

"Faheem is a distinguished leader in the biopharmaceutical industry, one who has successfully guided both emerging biotech and major pharmaceutical companies," said Troy Wilson, Ph.D., J.D., President and Chief Executive Officer of Kura Oncology. "His unique strategic vision and extensive commercialization, leadership and public company experience will be of tremendous value as we pursue the clinical development of tipifarnib and advance our preclinical programs toward the clinic."

"Kura Oncology has built an accomplished management team, attracted an impressive group of investors, and is advancing a promising pipeline of precision medicines," said Mr. Hasnain. "I look forward to being involved in their future development efforts as they continue to advance in this promising field."

Mr. Hasnain currently serves as President, Chief Executive Officer and a director of Receptos, Inc. Prior to joining Receptos, he was President, Chief Executive Officer and a director of Facet Biotech Corporation until the company's acquisition by Abbott Laboratories. Previously, Mr. Hasnain was President, Chief Executive Officer and a director of PDL BioPharma, Inc. until Facet Biotech was spun off from PDL Biopharma. He has also held roles with Biogen Idec Inc., where he was Executive Vice President in charge of the oncology/rheumatology strategic business unit; Bristol Myers Squibb, where he was President of the Oncology Therapeutics Network; and GlaxoSmithKline and its predecessor organizations.

Presently, Mr. Hasnain serves as chairman of the board of Tocagen Inc. as well as Sente, Inc. Previously, he was chairman of the board of Ambit Biosciences Corporation, acquired by Daiichi Sankyo Company, and he

served on the board of directors of Seragon Pharmaceuticals, Inc., acquired by Roche; Aragon Pharmaceuticals, Inc., acquired by Johnson & Johnson; and Tercica, Inc., acquired by Ipsen. Mr. Hasnain received a B.H.K. and B.Ed. from the University of Windsor Ontario in Canada.

ABOUT TIPIFARNIB

Kura Oncology's lead program, tipifarnib, is an inhibitor of farnesylation, a key cell signaling process implicated in cancer initiation and development. In extensive clinical trials, tipifarnib has shown compelling and durable anti-cancer activity in certain patient subsets and a well-established safety profile. Preclinical and clinical data suggest that, in the right genetic context, tipifarnib has the potential to provide significant benefit to cancer patients with limited treatment options. Leveraging advances in next-generation sequencing as well as emerging information about cancer genetics, Kura Oncology will seek to identify patients most likely to benefit from tipifarnib. The company plans to initiate a Phase 2 clinical trial of tipifarnib in patients who have tumors characterized by HRAS mutations in the second quarter of 2015 and a Phase 2 clinical trial in patients with peripheral T-cell lymphomas in the third quarter of 2015.

ABOUT KURA ONCOLOGY

Kura Oncology is a clinical-stage biopharmaceutical company focused on the discovery and development of precision medicines for the treatment of solid tumors and blood cancers. Kura Oncology's diverse pipeline consists of small molecules that target cancer signaling pathways where there is a strong scientific and clinical rationale to improve outcomes by identifying those patients most likely to benefit from treatment. Kura Oncology's approach to drug development is focused on rapidly translating novel science into life-saving medicines. More information is available at www.kuraoncology.com.

FORWARD LOOKING STATEMENTS

This news release contains certain forward-looking statements that involve risks and uncertainties that could cause actual results to be materially different from historical results or from any future results expressed or implied by such forward-looking statements. Such forward-looking statements include statements regarding, among other things, the potential utility of Kura Oncology's compounds and product candidates, and plans regarding future research and development. Factors that may cause actual results to differ materially include the risk that compounds that appeared promising in early research do not demonstrate safety and/or efficacy in later pre-clinical studies or clinical trials, the risk that Kura Oncology may not obtain approval to market its

product candidates, uncertainties associated with regulatory filings and applications, the risks associated with reliance on outside financing to meet capital requirements, and the risks associated with reliance on collaborative partners for further research, clinical trials, development and commercialization of product candidates. You are urged to consider statements that include the words "may," "will," "would," "could," "should," "believes," "estimates," "projects," "potential," "expects," "plans," "anticipates," "intends," "continues," " "designed," "goal," or the negative of those words or other comparable words to be uncertain and forward-looking. For a further list and description of the risks and uncertainties the Company faces, please refer to the Company's periodic and other filings with the Securities and Exchange Commission, which are available at www.sec.gov. Such forward-looking statements are current only as of the date they are made, and Kura Oncology assumes no obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise.

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