Haley Guiliano

Kiruthika Elamparuthi

TECHNICAL ADVISOR

kiruthika.elamparuthi@hglaw.com

75 Broad Street, Suite 1000
New York, NY 10004
Main: 646-973-2500
Fax: 646-219-6229

Kiruthika, an expert in organic synthesis and medicinal chemistry, joined Haley Guiliano as a Technical Advisor in the Life Sciences Group. She leverages her training in organic chemistry to assist in various intellectual property matters including drafting and prosecuting applications for several pharmaceutical and biotechnology clients.

Before joining the firm, Kiruthika served as a senior scientist at Venenum Biodesign where she facilitated small molecule drug discovery. Her work focused on early-stage drug discovery, identifying hits, and interpreting structure-activity relationships. Her work addressed ADME challenges for lead generation and optimization by designing and constructing scaffolds against novel drug targets in immuno-oncology, infectious diseases, and metabolic disorders.

Kiruthika holds a Ph.D. and M.S. from the University of Madras in Organic Chemistry. Her master's research constructed three generations of thiophene-BINOL based dendrimers, which attracted the attention of chemists due to their unique chiro-optical and medicinal properties. Kiruthika's doctoral research focused on methodology development for constructing heterocycles using transition metal catalysis and multi-component reactions involving alkynes. Her work utilized the less-exploited copper-catalyzed cross-coupling reactions of ynamides to develop interesting heterocyclic scaffolds - which have extensive applications in medicinal chemistry and material science in an inter/intramolecular one-pot fashion. She further used multi-component reactions to create spirocycles involving electron-deficient alkynes that are otherwise complex to synthesize.

Related Practice Areas

- Patent Preparation and Prosecution

Related Industries

- Pharmaceuticals and Chemicals
- Biotechnology

Languages

- Tamil

Publications

- Kiruthika, S. E., Nandakumar, A. and Perumal, P. T. “Synthesis of Pyrrolo-/Indolo[1,2-a]quinolines and Naphtho[2,1-b]thiophenes from gem-Dibromovinyls and Sulphonamides”, *Org. Lett*. 2014, *16*, 4424–4427.
- Kiruthika, S. E. and Perumal, P. T. “CuI-Catalyzed Coupling of gem-Dibromovinylanilides and Sulfonamides: An Efficient Method for the Synthesis of 2-Amidoindoles and Indolo[1,2-a]quinazolines”, *Org. Lett*

. 2014, *16*, 484-487.

- Kiruthika, S. E. and Perumal, P. T. “One-pot four-component approach for the construction of dihydropyridines and dihydropyridinones using amines and activated alkynes”, *RSC Adv.* 2014, *4*, 3758-3767.
- Kiruthika, S. E., Amritha, R. and Perumal, P. T. “An efficient strategy for functionalized spirolactones and dispirodihydrofuranyl oxindoles using amines and activated alkynes”, *Lett*. 2012, *53*, 3268-3273.
- Kiruthika, S. E., Lakshmi, N. V., Banu, B. R. and Perumal, P. T. “A facile strategy for the one pot multicomponent synthesis of spiro dihydropyridines from amines and activated alkynes”, *Lett*. 2011, *52*, 6508–6511.
- Kiruthika, S. E., Nandakumar, A., Naveen, K. and Perumal, P. T. “Pd(0)-catalyzed regio-and stereoselective cyclization of alkynes: selective synthesis of (E)-4-(isobenzofuran-1(3H)-ylidene)-1,2,3,4-tetrahydroisoquinolines and aze/oxepinoindoles.”, *Biomol. Chem*. 2014, *12*, 876-880.
- Kiruthika S. E., Perumal, P.T., Balachandran, C. and Ignacimuthu, S. “An easy protocol for the domino synthesis of diversely functionalized spirocarbocycles and their biological evaluation”, *Journal of Chemical Sciences*, 2014, *126*, 177-185.
- Lakshmi, N. V., Kiruthika, S. E. and Perumal, P. T. “A Rapid and Efficient Access to 4-Substituted 2-Amino-4H-chromenes Catalyzed by $InCl_3$” *Synlett*, 2011, *10*, 1389-1394.
- Lakshmi, N. V., Kiruthika, S. E. and Perumal, P. T. “Multicomponent assembly of 2-amino-4-substituted 4H-chromenes using cyclic N-Michael donor” *Canadian Journal of Chemistry*, 2013, *91*, 479-485.

Memberships

- American Chemical Society (ACS)
- Association for Women in Science (AWIS)

Honors & Awards

- R.H. Ramachandra Rao medal for the Best Graduate Thesis, University of Madras, India, 2016
- Senior Research Fellowship, Council of Scientific and Industrial Research, India, 2012
- Junior Research Fellowship, Council of Scientific and Industrial Research, India, 2010
- Prof. K.K Balasubramanian Endowment award for outstanding graduate in Masters (Organic Chemistry), University of Madras, India, 2011
- Gold Medal for Outstanding Graduate in Bachelors (Chemistry), University of Madras, India, 2009

Education

- Ph.D., Organic Chemistry, 2016, University of Madras
- M.Sc., Organic Chemistry, 2010, University of Madras
- B.Sc., Chemistry, 2008, University of Madras