EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

Curriculum Vitae

PERSONAL INFORMATION

Elin Lindhagen

WORK EXPERIENCE

September 2019- Present

Senior Scientific Expert of Pharmacokinetics

Medical Products Agency (Sweden)

Scientific support and quailty assurance of assessments in the area of pharmacokinetics.

September 2011-September 2019

Assessor, pharmacokinetics

Medical Products Agency (Sweden)

Assessor in pharmacokinetics; all kinds of applications, scientific advice, clinical trials.

April 2008-September 2011

Scientific Publications Manager

Uppsala Clinical Research Center (Sweden)

Managing publication activities, especially after large international phase III studies in cardiology, Academic Research Organisation

January 2008-April 2009

Assessor, pharmacokinetics

Medical Products Agency (Sweden)

April 2000-January 2008

Researcher (Associate/assistant professor)

Uppsala University (Sweden)

Preclinical development of anticancer drugs, research activities and supervision/education

EDUCATION AND TRAINING

August 1991-June 1995

Master of Science in Pharmacy, pharmacist

Uppsala University (Sweden)

January 1996-April 2000

PhD (medicine)

Uppsala University (Medical faculty, Dept of Clinical Pharmacology) (Sweden)

Discovery and development of anticancer drugs, in vitro and in vivo method development

-January 2004

Associate professor in Experimental Clinical Pharmacology

Uppsala University (Sweden)

ADDITIONAL INFORMATION

Expertise

pharmacokinetics (assessment of clinical pharmacology issues in all kinds of applications including NCE, scientific advice)

drug-drug interactions

experimental oncology and haematology

Publications

1. Haglund C, Aleskog A, Nygren P, Gullbo J, Hoglund M, Wickstrom M, Larsson R, Lindhagen E. In vitro evaluation of clinical activity and toxicity of anticancer drugs using tumor cells from patients and cells representing normal tissues. Cancer Chemother Pharmacol. 2012 Mar;69(3):697-707

2. Norberg M, Lindhagen E, Kanduri M, Rickardson L,Sundstrom C, Stamatopoulos K, Rosenquist R and Aleskog A. Screening for Cytotoxic Compounds in Poor-prognostic Chronic Lymphocytic Leukemia. Anticancer Res (2012) 32(8):3125-36

3. 3. Eriksson A, Hermanson M, Wickstrom M, Lindhagen E, Ekholm C, Jenmalm Jensen A, Lothgren A, Lehmann F, Larsson R, Parrow V, Hoglund M. .The novel tyrosine kinase inhibitor AKN-028 has significant antileukemic activity in cell lines and primary cultures of acute myeloid leukemia. Blood Cancer J (2012) Aug 3

4. Eriksson A, Hoglund M, Lindhagen E, Aleskog A, Hassan SB, Ekholm C, Fholenhag K, Jensen AJ, Lothgren A, Scobie M, Larsson R, Parrow V. Identification of AKN-032, a novel 2-aminopyrazine tyrosine kinase inhibitor, with significant preclinical activity in acute myeloid leukemia. Biochem Pharmacol. (2010) 80(10):1507-16.

5. Haglund C, Aleskog A, Hakansson LD, Hoglund M, Jacobsson S, Larsson R, Lindhagen E. The FMCA-GM assays, high throughput non-clonogenic alternatives to CFU-GM in preclinical hematotoxicity testing. Haglund C, Aleskog A, Hakansson LD, Hoglund M, Jacobsson S, Larsson R, Lindhagen E. Toxicol Lett. (2010) 194(3):102-7.

6. Fuchs D, Christofferson R, Stridsberg M, Lindhagen E and Azarbayjani F. Regression of orthotopic neuroblastoma in mice by targeting the endothelial and tumor cell compartments. J Trans Med (2009) 7(1):16

7. Lindhagen E, Norberg M, Kanduri M, Tobin G, Saisanen L, Aberg M, Gustafsson MG, Sundstrom C, Rosenquist R, Aleskog A. In vitro activity of 20 agents in different prognostic subgroups of chronic lymphocytic leukaemia - rolipram and prednisolone active in cells from patients with poor prognosis. Eur J Haematol (2009) 83(1); 22-34.

8. Hassan SB, Lindhagen E, Goransson H, Fryknas M, Isaksson A, Gali-Muhtasib H, Larsson R. Gene expression signature-based chemical genomics and activity pattern in a panel of tumour cell lines propose linalyl acetate as a protein kinase/NFkB inhibitor. Gene Ther Mol Biol (2008) 359-70.

9. Wiberg K, Carlson K, Aleskog A, Larsson R, Nygren P and Lindhagen E. In vitro activity of bortezomib in cultures of patient tumour cells - potential utility in haematological malignancies. Med Oncol (2009) 26(2):193-201.

10. Aleskog A, Norberg M, Nygren P, Richardsson L, Tobin G, Rosenquist R and Lindhagen E. Rapamycin shows anticancer activity in primary chronic lymphocytic leukaemia cells in vitro, as single agent and in drug combination. Leukaemia and Lymphoma (2008) 49(12):2333-43.

11. Lindhagen E, Eriksson A, Danielsson K, Grundmark B, Henriksson R, Nygren P, Wickstrom M, Aleskog A, Larsson R and Hoglund M. Significant cytotoxic activity in vitro of the EGFR tyrosine kinase inhibitor gefitinib in acute myeloblastic leukaemia. Eur J Haematol (2008) 81(5):344-53.

12. Lindhagen E, Nygren P and Larsson R. The fluorometric microculture cytotoxicity assay. Nature Protocols (2008) 3:1364-1369.

13. Quartino A, Karlsson MO, Freijs A, Jonsson N, Nygren P, Kristensen J, Lindhagen E and Larsson R. Modeling of in vitro drug activity and prediction of clinical outcome in acute myeloid leukemia. J of Clin Pharm (2007) 47: 1014-21.

14. Hassan SB, Haglund C, Aleskog A, Larsson R and Lindhagen E. Primary lymphocytes as predictors for species differences in cytotoxic drug sensitivity. Toxicol In Vitro (2007) 21: 1174-81

15. Lindhagen E, Rickardson L, Elliott G, Leoni L, Nygren P, Larsson R and Aleskog A. Pharmacological profiling of novel non-COX-inhibiting indole-pyran analogues of etodolac reveals high solid tumour activity of SDX-308 in vitro. Invest New Drugs (2007) 4:297-303

16. Lindhagen E, Nissle S, Leoni L, Elliott G, Qi C, Larsson R and Aleskog A. R-etodolac (SDX-101) and the related indole-pyran analogues SDX-308 and SDX-309 potentiate the antileukemic activity of standard cytotoxic agents in primary chronic lymphocytic leukaemia cells. Cancer Chemother Pharmacol (2007) 4:545-53.

17. Hassan SB, Lovborg H, Lindhagen E, Karlsson MO and Larsson R. Does the novel anticancer agent CHS 828 induce tumor cell death by inhibiting the transcription factor NFkB translocation through down regulation of the proteasome? Anticancer Res (2006) 26: 4431-4436.

18. Olsson-Stromberg U, Aleskog A, Bjornberg A, Hoglund M, Simonsson B, Bengtsson M, Larsson R and Lindhagen E. Imatinib activity in vitro in tumor cells from patients with chronic myeloid leukemia in chronic phase and blast crisis. (2006) Anticancer Drugs 17: 631-39.

19. Aleskog A, Hoglund M, Pettersson J, Hermansson M, Larsson R and Lindhagen E. In vitro activity of the FLT3-inhibitor SU5614 and standard cytotoxic agents in tumour cells from patients with wild type and mutated FLT3 acute myeloid leukemia (2005). Leukemia Res. 29: 1079-81.

20. Friberg LE, Hassan SB, Lindhagen E, Hansen K, Larsson R and Karlsson MO. Pharmacokinetic-Pharmacodynamic modeling of the schedule dependent effect of CHS 828 in a rat hollow fiber model. (2005) Eur J Pharmacol Exp Therap. 25: 13-173.

21. Hallbook H, Barbany G, Aleskog A, Bjornberg A, Larsson R, Sundstrom C and Lindhagen E. In vitro activity of imatinib in cells from patients with adult acute lymphoblastic leukemia. Anticancer drugs (2005) 16: 631-634.

22. Aleskog A, Larsson R, Hoglund M, Kristensen J, Nygren P and Lindhagen E. Cellular drug resistance profiles in chronic lymphocytic leukaemia: a comparison with acute myeloid leukaemia and acute lymphocytic leukaemia Anticancer Drugs (2005) 16 (3): 277-83.

23. Hassan S, Dhar S, Sandstrom M, Arsenau D, Budnikova M, Lokot I, Lobanov N, Karlsson MO, Larsson R and Lindhagen E. Cytotoxic activity of a new paclitaxel formulation, Pacliex, in vitro and in vivo Cancer Chemother Pharmacol (2005) 55: 47-54.

24. Lindhagen E, Vig-Hjarnaa PJ, Friberg LE, Latini S and Larsson R. Pharmacodynamic differences between species exemplified by the novel anticancer agent CHS 828. Drug Dev Res (2004) 61: 218-226.

25. Aleskog A, Tobin G, Laurell A, Thunberg U, Lindhagen E, Roos G, Nilsson K, Nygren P, Sundstrom C, Hoglund M, Larsson R, Rosenquist R. IgVH gene mutation status and cellular drug resistance in chronic lymphocytic leukaemia. Eur J Haematol (2004) 73: 407-411.

26. Gullbo J, Lindhagen E, Bashir-Hassan S, Tullberg M, Ehrsson H, Lewensohn R, Nygren P, de la Torres M, Luthman T and Larsson R. Antitumor efficicy and acute toxicity of the novel dipeptide melphalanyl-p-L-fluorophenylalanine ethyl ester (J1) in vivo. Inv New Drugs (2004) 22: 411-420.

27. Hovstadius P, Lindhagen E, Jernberg-Viklund H, Hassan SB, Nilsson K, Nygren P, Binderup L and Larsson R. Cytotoxic effect of CHS 828 on human myeloma cell lines. Anticancer drugs (2004) 15, 63-70.

28. Gullbo J, Arsenau D, Grundmark B, Alvfors C, Larsson R, Lindhagen E. Cytotoxic activity of a new lipid formulation of doxorubicin in cell lines and primary tumor cells. Anticancer Research (2002) 22: 4191-98.

29. Frost BM, Lonnerholm G, Nygren P, Larsson R and Lindhagen E. In vitro activity of the novel cytotoxic agent CHS 828 in childhood acute leukemia. Anticancer Drugs (2002) 7, 735-42.

30. Hovstadius P, Larsson R, Jonsson E, Skov T, Kissmeyer AM, Krassilnikoff K, Bergh J, Karlsson MO, Lonnebo A and Ahlgren J. A phase I study of CHS 828 in patients with solid tumour malignancy. Clincial Cancer Res (2002) 8, 2843-50.

31. Svensson A, Backman U, Jonsson E, Larsson R and Christofferson R. CHS 828, a new pyridyl cyanoguanidine, inhibits neuroblastoma growth in vivo alone and in combination with antiangiogenic drugs. Ped Res (2002) 51(5): 607-11.

32. Aleskog A, Jonsson E, Larsson R, Nygren P, Sundstrom C, Kristensen J and Hoglund M. In vitro evaluation of idarubicin in human tumour cells from patients with low-grade non-Hodgkin´s lymphoma using the FMCA. Br J Haematol (2002) 117(3):563-8.

33. Aleskog A, Bashir-Hassan SB, Hovstadius P, Kristensen J, Hoglund M, Tholander B, Binderup L, Larsson R and Jonsson E. Activity of CHS 828 in primary cultures of human haematological and solid tumors in vitro. Anticancer Drugs (2001) 12(10):821-7.

34. Hassan SB, Jonsson E, Larsson R and Karlsson MO. Model for time dependency of the cytotoxic effect of CHS 828 in vitro suggests two different mechanisms of action. J Pharm Exp Ther (2001) 299:1140-1147.

35. Jonsson E, Simonsen LE, Hassan SB, Nygren P, Kristensen J, Tholander B, Binderup L, Karlsson MO and Larsson R; In vivo activity of CHS 828 on hollow fiber cultures of primary human tumor cells from patients. Cancer Lett (2001) 162 (2) 193-200.

36. Hassan SB, de la Torre M, Nygren P, Karlsson MO, Larsson R and Jonsson E; A hollow fiber model for in vitro studies of compounds: activity of the cyanoguanidine CHS 828. Anticancer Drugs (2001), 12: 33-42.

37. Martinsson P, Liminga G, Dhar S, de la Torre M, Lukinius A, Jonsson E, Hassan S, Binderup L, Kristensen J and Larsson R; Temporal effects of the novel antitumour pyridyl cyanoguanidine CHS 828, on human lymphoma cells. Eur J Cancer (2001), 37: 260-267.

38. Jonsson E, Simonsen LE, Hassan S, Freijs A, Hansen K, Karlsson MO and Larsson R; Determination of drug effect on tumor cells, host animal toxicity and drug pharmacokinetics in a hollow fiber model in rats. Cancer Chemother Pharmacol (2000), 46: 493-500.

39. Jonsson E, Dhar S, Jonsson B, Nygren P, Graf W and Larsson R; Differential activity of topotecan, irinotecan and SN-38 in primary cultures of human tumor cells but not in cell lines. Eur J Cancer (2000), 36 (16), 2120-2127.

40. Vig Hjarnaa PJ, Jonsson E, Latini S, Dhar S, Larsson R, Bramm E, Skov T and Binderup L; CHS 828, a novel pyridyl cyanoguanidin with potent antitumor activity in vitro and in vivo. Cancer Res (1999), 59, 5751-5757.

41. Fridborg H, Jonsson E, Nygren P and Larsson R; Relationship between diagnosis-specific activity of cytotoxic drugs in fresh human tumor cells ex vivo and clinical activity patterns. Eur J Cancer (1999), 35 (3), 424-432.

42. Jonsson E, Fridborg H, Nygren P and Larsson R; Synergistic interactions of combinations of topotecan with standard drugs in primary cultures of human tumor cells from patients. Eur J Clin Pharmacol (1998) 54, 509-514.

43. Jonsson E, Fridborg H, Csoka K, Dhar S, Sundstrom C, Nygren P and Larsson R; Cytotoxic activity of topotecan in human tumor cell lines and primary cultures of human tumour cells from patients. Br J Cancer (1997) 76(2), 211-219.

Projects

Memberships

ICH M12

Methodology Working Party

Other Relevant Information