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Highlights

1. **Metabolomics:** Global extraction and analysis of metabolome in blood plasma, erythrocytes and CSF, multivariate data analysis (PCA and PLS).
2. **Drug Metabolism:** Identification of drug metabolites. Elucidating metabolic pathway and P450 enzymes involved in metabolism.
3. **PK and bioequivalence:** Design and implementation of PK and bioequivalent study, data processing, analysis, statistics and interpretation of results.
4. **Bioanalytical Chemistry:** Highly sensitive method of bioanalysis by means of HPLC, LC/MS(-MS) and GC/MS. SPE, liquid-liquid extraction of compounds in body fluids.
5. **Pharmaceutics:** Pharmaceutical formulation of dosage forms, especially of sustained-release tablets, dispersible tablets.

Education

B.Sc. **Pharmacy** Sept. 1984-July 1988
China Pharmaceutical University, Nanjing, China
Advisor: Prof. Xide Tu

M.Sc. **Biopharmaceutics** Sept. 1996-July 1999
China Pharmaceutical University, Nanjing, China
Supervisor: Prof. Xide Tu

PhD **Drug Metabolism & Pharmacokinetics** Sept. 1999-July 2002
China Pharmaceutical University, Nanjing, China
Supervisor: Prof. Guangji Wang

Professional and Research Experiences

Post-doctoral scientist, Department of Medical Biosciences, Clinical Chemistry, Umeå University Hospital; Umeå Plant Science Center, Swedish University of Agricultural Sciences. Sept. 2003— to present

Majored in metabolomics of patients suffering from Amyotrophic Lateral Sclerosis (ALS). Methodology of extraction and global analysis of metabolome in human blood plasma and cerebrospinal fluid, mice plasma and erythrocytes using GC/TOF-MS.

Pharmacist, Department of Clinical pharmacology, JiangSu Province Hospital (The First Affiliated Hospital of Nanjing Medical University). Dec. 2002 —Aug. 2003

Design and implementation of bioequivalent study of loratadine tablets and sustained-release tablets of dimethyldiguanide.

Graduate, Ph.D., China Pharmaceutical University. Sept.1996—July, 2002

Formulation development of donepezil hydrochloride tablets, meloxicam capsules, dispersible tablets of famotidine and meloxicam, sustained-release tablets of acyclovir, isosorbide mononitrate and felodipine.

Metabolism of Guanfu base A and nimodipine. Separation and identification of phase □and □ metabolites of Guanfu base A using LC/MS and LC/MS-MS; Bioequivalence study on enalapril capsules.

Pharmacist, Department of Clinical Pharmacology, JiangSu Province Hospital, Feb. 1993 — Sept.1996

Mornitoring the concentrations of clinical drugs with narrow therapeutic windows, such as cyclosporin, digoxin, aminophylline. Formulation development of tinidazole and vitamin C effervescence tablets, levo-ofloxacin lactate and Gegeng Su injections, cisplatin microspheres.

Assistant Pharmacist, JiangPu People's Hospital, Aug. 1988 —Jan.1993

Manufacturing ophthalmic, external and sterile preparations, such as glucose infusion solution and glucose saline infusion solution.

Technical Expertise

Metabolomics

- Methodology for extraction and global analysis of metabolome in blood plasma,

erythrocytes and cerebrospinal fluid using GC/TOF-MS;

- Multivariate data analysis (PCA, PLS, PLS_DA, OPLS), Identification of biomarkers concerned.

Drug Metabolism & Pharmacokinetics

- Separation and identification of phase □and □ metabolites using LC/MS and LC/MS-MS. Elucidating metabolic pathway and P450 enzymes involved in metabolism;
- Design and implementation of PK and bioequivalent study;
- PK and bioequivalence data processing, analysis, statistics and interpretation of results;
- Studies on *in vitro* metabolism using human or rat liver microsomes, S9 fraction;
- Animal experiments on rats and dogs. Good at cannulation of rat bile duct, sampling and injection *via* the rat caudal vein.

Analytical Chemistry

- Developing, validating, and implement highly sensitive bioanalytical assays by means of HPLC, LC/MS(-MS) and GC/MS;
- SPE, deproteinization, liquid-liquid extraction approaches to trace level of drugs, as well as small-molecular-weight compounds in plasma;
- Familiar with many kinds of HPLC, MS instruments, such as Agilent 1100 LC/MSD, PE Sciex API 2000 MS/MS, Agilent 6890N GC, Leco Pegasus □ TOF MS, Shimadzu 2010 LC/MSD, Waters HPLC series.

Pharmaceutics

- Formulation development of conventional tablets, capsules, dispersible tablets, sustained-release tablets, effervescence tablets, injections and infusions;
- Dissolution test for rapid-release and sustained-release dosage forms;
- Elucidating degraded compounds using LC/MS;
- Preparation of regulatory documents for approval.

Professional software

Metabolomics/metabonomics: multi- and megavariate data analysis using SIMCA (PCA, PLS, PLS_DA, OPLS);

Design of experiment: MODDE ;

Statistics: SAS (statistic analysis system), Excel, Matlab;

Pharmacokinetics: PKBP; 3P87; 3P97; PK Analysis;

Instruments softwares: Chemstation software A 8.03 (Agilent HP 1100 series); Analytic software 1.0(PE Sciex API 2000 MS/MS); Chroma TOF version 2.0(Leco Pagasus □ TOF MS); NIST.

Publications

1. Jiye A, Johan Trygg, Jonas Gallberg, Annika Johansson, Pär Jonsson, Henrik Antti□Stefan Marklund, Thomas Moritz. Extraction and GC/MS Analysis of the Human Blood Plasma Metabolome. ***Analytical Chemistry,*** *accepted.*
2. Pär Jonsson, Annika I. Johansson, Jonas Gullberg, Johan Trygg, **Jiye A**, Björn Grung, Stefan Marklund, Michael Sjöström, Henrik Antti, and Thomas Moritz. High-Throughput Data Analysis for Detecting and Identifying Differences between Samples in GC/MS-Based Metabolomic Analyses. ***Analytical Chemistry***, 2005, 77: 5635-5642.
3. Jiye A, Guangji Wang, Jianguo Sun, Yongchuan Gu, Mingshu Wu, Jinghan Liu. Identification of Phase I and Phase II Metabolites of Guanfu Base A Hydrochloride in Human Urine. ***European Journal of Drug Metabolism and Pharmacokinetics***. 2003, 28(4): 265-272.
4. A Jiye, Wang Guangji, Wu Mminshu, Liu Jinghan. Identification of guanfu base A hydrochloride phase □ and phase □ metabolites in rat bile by liquid chromatography mass spectrometry. ***Acta Pharmacologica Sinica,*** 2002,23(11) :1045-1050.
5. A Jiye, Wang Guangji. Drug metabolism research in the design and structural modification of new drugs (Review). ***Progress in Pharmaceutical Sciences***. 2002,26(2): 80-86.
6. Yongchuan Gu, Guangji Wang, Guoyu Pan, J. Paul Fawcett, Jiye A, and Jianguo Sun, Transport and Bioavailability Studies of Astragaloside IV, an Active Ingredient in Radix Astragali, ***Pharmacology & Toxicology***, 2004, **95**, 295–298.
7. A Jiye. Disintegration and dissolution rate of famotidine dispersible tablets in vitro. ***Chinese Journal of Pharmaceuticals***, 2001, 32(6): 254-255, 259.
8. A Jiye, Liu Yun, Feng Lin. The effect of manufacturing process of solid dosage forms on polymorphism of drugs (Review). ***Chinese Journal of Pharmaceuticals***, 2000, 31 (11): 546-548.
9. A Jiye, Tu Xide. Study of acyclovir sustained release tablets in vitro and in vivo. ***Journal of China Pharmaceutical University***, 2000,31(5): 67-69.

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10. A Jiye, Fen L, Shao Z. Making analysis of variance on pharmaceutical bioequivalence using Statistical Analysis System. ***JiangSu Pharmaceutical and Clinical Research***, 2000,8(2): 56-57.

11. A Jiye. Development of oral delivery system of insulin (Review). ***JiangSu Pharmaceutical and Clinical Research***, 2000, 10(3): 132-134.

12. A Jiye. Approach of studying parameters commonly used in population pharmacokinetics and evaluation. ***Journal of China Pharmaceutical University***, 1999,30(suppl.): 67-69.

References

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