

CURRICULUM VITA

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TITLE: Professor

Education: B.S. in Pharmacy 1971-1975 University of Tokyo
Ph.D. in Pharmaceutics 1985-1986 Hoshi University

Academic and Social Appointments

4/07 - present Professor of Pharmaceutical Science
University of Shizuoka

4/04 - 3/07 Head of Center for Quality Evaluation
Taisho Pharmaceutical Co. Ltd.

4/02 - 4/04 Deputy General Manager of the First Production Division
Taisho Pharmaceutical Co. Ltd.

4/00 - 3/02 Honorary Lecturer of Toho University

6/96 - 3/02 Head of Pharmaceutical Technology Laboratories
Taisho Pharmaceutical Co. Ltd.

4/75 - 3/02 Resercher
Taisho Pharmaceutical Co. Ltd.

Professional Activities

6/15-present Executive board member of Japan Society of Pharmaceutical Machinery and
Engineering

6/13- 5/15 Chairman of Japan Society of Pharmaceutical Machinery and
Engineering

6/10- present Editor of Japan Pharmacopeia Technology Information

5/10- present Director of the Academy of Pharmaceutical Science and Technology,
Japan

4/10- present Member of Japan Pharmacopeia International Harmonization Committee

4/09- 3/11 Secretary of Pharmaceutical Society of Japan (Tokai Branch)

4/08- present Professional Member of Pharmaceutical and Medical Devices Agency

4/08- 6/13 Vice Chairman of Japan Society of Pharmaceutical Machinery and
Engineering

4/08- 11/03	Editor of Chemical & Pharmaceutical Bulletin
1/95- 3/02	Member of Japan Pharmacopeia Physical Test Methods Committee
6/91- 3/00	Advisory Panel of United States Pharmacopeia

Membership in Academic, Professional, and Scholarly Societies

International Pharmaceutical Federation
The Academy of Pharmaceutical Science and Technology, Japan
Pharmaceutical Society of Japan
Japan Society of Pharmaceutical Machinery and Engineering

Books

- 1) Recent Pharmaceutical Technology and its Application III (Iyaku Journal) (1986)
- 2) Drug Delivery System (CMC Co.Ltd) (1986)
- 3) Development of Medicines[®] Preformulation and Physical Test Methods (Hirokawa Publisher) (1990)
- 4) Japan Pharmacopeia Technology Information (yakuji Jiho Co. Ltd) (1998)
- 5) 14th Japan Pharmacopeia (2001)
- 6) Useful Particle Design and Process Technology (Jiho) (2003)
- 7) Physical Evaluation of Pharmaceutical Solid (Jiho) (2003)
- 8) 15th Japan Pharmacopeia (2006)
- 9) Handbook of Pharmaceutical Machinery and Engineering [Second Edition] (Japan Society of Pharmaceutical Machinery and Engineering) (2010)
- 10) 16th Japan Pharmacopeia (2011)
- 11) Fine particle coating technologies for medicinal dosage form development in next generation (CMC) (2012)
- 12) Schematic pharmaceutics (nanzando) (2013)
- 13) Structural analysis of polymer-coated microgranules by microtomography using synchrotron X-ray radiation. Pharm.Tec Japan (Jho) 29 2523-2527 (2013)
- 14) A simplified method to determine the functionality of pharmaceutical excipients by a parameter relating to available surface area. Journal of pharmaceutical machinery and engineering 130-139 (2014)
- 15) Preparation of novel clarithromycin formulation with sustained release property by means of metastable crystal of clarithromycin.

Refereed Articles

- 1) Chemical & Pharmaceutical Bulletin, 33(4), 1641 (1985)
Prediction of available surface area of powdered particles of fulfenamic acid in tablets.
Kouchiwa,S., Nemoto, M., **Itai,S.**, Murayama,H., Nagai,T.
- 2) Chemical & Pharmaceutical Bulletin,65, 33(6), 2452 (1985)
Dissolution profiles of nalidixic acid powders having Weibull particle size distribution.
Kouchiwa,S., Nemoto, M., **Itai,S.**, Murayama,H., Nagai,T.
- 3) Chemical & Pharmaceutical Bulletin,65, 33(12), 5464 (1985)
Influence of wetting factors on the dissolution behavior of flufenamic Acid.
Itai,S., Kouchiwa,S., Nemoto, M., Murayama,H., Nagai,T.
- 4) Chemical & Pharmaceutical Bulletin, 34(3), 1264 (1986)
Effect of compression pressure and formulation on the available surface area of flufenamic acid in tablets.
Itai,S., Kouchiwa,S., Nemoto, M., Murayama,H., Nagai,T.
- 5) Chemical & Pharmaceutical Bulletin, 34(4), 1280 (1986)
Kinetic approach to determine the generation rate of available surface area during the dissolution Process.
Itai,S., Kouchiwa,S., Nemoto, M., Murayama,H., Nagai,T.
- 6) Chemical & Pharmaceutical Bulletin, 40(3), 725 (1992)
Physicochemical properties and stability in the acidic solution of a new macrolide antibiotic clarithromycin, in Ccomparison with erythromycin.
Nakagawa,Y., **Itai,S.**, Yoshida,T., Nagai,T.
- 7) Pharm.Res., 12 (3), 342 (1995)
Physicochemical characterization of parenterl lipid emulsion: determination of hamaker constants and analysis by DLVO theory.
Yamaguchi,T., Nishizaki,K., **Itai ,S.**, Hayashi,H., Ohshima,H.
- 8) Chemical & Pharmaceutical Bulletin, 43 (11), 1943 (1995)
The in vitro dissolution tests corresponding to in vivo dissolution in stomach and intestine for clarithromycin tablet.
Ishii ,K., Saito,Y., Yamada,R. **Itai,S.**, Ito,Y., Nemoto,M.
- 9) Chemical & Pharmaceutical Bulletin, 43(12), 2221 (1995)
Improvement of dissolution characteristics of a new chalcone derivative, SU-740:comparison between size reduction, solid dispersion and inclusion complexation.
Ito,S., Demachi,M., Yumiko Toriumi,Y., Adachi,T., **Itai,S.**, Hayashi,H., Uegama,K.
- 10) Biochem. Biophys. Acta, 1256, 381 (1995)
Rate of release and retentivity of prostaglandin E1 lipid emulsion.
Yamaguchi,T.,Kaori Nishizaki,K., **Shigeru.Itai,S.**,Hayashi,H.
- 11) Colloids and Surfaces B: Biointerfaces,5, 49 (1995)
Adsorption of divalent cations onto the menbrane surface of lipid emulsion.

- Yamaguchi,T.,Kaori Nishizaki,**K., Shigeru.Itai,S.**, Nemoto,M.,Hayashi,H., Ohshima,H.
- 12) Biological & Pharmaceutical Bulletin, 18(6), 882 (1995)
A new pharmacokinetic models including in vivo dissolution and gastrointestinal transit parameter.
Ishii,K., ,Yoko Katayama,Y.,**Itai,S.**, Ito,Y., Hayashi,H.
 - 13) Chemical & Pharmaceutical Bulletin, 44(1), 187 (1996)
The particle design for taste masking with spray-congealing technique.
Yajima,Y., Akemi Nogata,A., Demachi,M., Umeki,N., **Itai,S.**, Yunoki,N., Nemoto,M.
 - 14) Chemical & Pharmaceutical Bulletin, 44 (5), 1056 (1996)
Optimization for particle size distributions of granules before compression.
Yajima,Y.,**Itai,S.**, Hayashi,H., Takayama,K., Nagai,T.
 - 15) Pharm. Res.,13(5), 729 (1996)
Non-invasive analysis of parenteral lipid emulsion in mice by in vivo ESR spectroscopy.
Yamaguchi, **T. Itai,S.**, Hidefumi Hayashi, H., Soda,S., Hamada,A., Utsumi,H.
 - 16) Chemical & Pharmaceutical Bulletin, 44(8), 1550 (1996)
Novel approach for determination of correlation between in vivo and in vitro dissolution using the optimization technique
Ishii,K., Katayama,Y.,**Itai,S.**, Nemoto,M.
 - 17) Iyaku-hin Kenkyuu 27(2), 68 (1996)
Study on physical characterization (1)
Measurement of particle size and size distribution by laser diffraction method.
Ashizawa,K., Sotooka,H., **Itai,S.**, Terada,K., Hirano,T., Ito,Y., Horiuchi,K., Okuda,H., Shimizu,N., Tamura,B.
 - 18) Iyaku-hin Kenkyuu 27(2), 77 (1996)
Study on physical characterization (2)
Measurement of specific surface area by gas absorption method.
Terada,K., , Sotooka,H., **Itai,S.**, Hirano,T., Ito,Y., Horiuchi,K., Okuda,H., Shimizu,N., Tamura,B.
 - 19) S.T.P.Pharma.Sci.,7(4), 270 (1997)
In vitro dissolution test corresponding to in vivo dissolution of sofalcone formulation.
Ishii,K., Katayama,Y.,**Itai,S.**, Takayama,K., Nagai,T.
 - 20) Drug Stability 4, 202 (1997)
Effect of water content and temperature on the stability of lornoxicam tablets.
Koizumi,N., Agachi,T., Minoru Koji,M.,**Itai,S.**
 - 21) Colloids and Surface B:Biointerfaces 9, 275 (1997)
Lipid and electrolytes in a monolayer of parenteral lipid emulsion.
Yamaguchi,T.,**Itai,S.**, et al.
 - 22) Drug.Dev.Ind.Pharm.,24 (2), 129 (1998)
Comparative study of pharmacokinetic parameters between clarithromycin and erythromycin stearate in relation to their physicochemical properties.
Ishii,K., Yoko Saito,Y.,**Itai,S.**, Takayama,K., Nagai,T.
 - 23) Drug Delivery System 13(6), 435 (1998)

Comparison of Analysis on the Release Behavior of Drug from Lipid Emulsion.
Yamaguchi,T., Fukushima,Y., **Itai,S.**

- 24) Pharm.Res.,15 (12), 1844 (1998)
Development of Novel Chitosan Derivatives as Micellar Carrier of Taxol.
Miwa,A Nakano,M., Yamahira,T., **Itai,S.** Jinno,S., Hiroyuki Kawahara,H.
- 25) Chemical & Pharmaceutical Bulletin, 47(2), 220 (1999)
Optimum Spray Congealing Conditions for Masking the Bitter Taste of Clarithromycin in Wax-Matrix
Yajima,T., Umeki,N **Itai,S.**
- 26) Iyaku Journal 34(6). 125 (1998)
Incompatibility of Commercial Intravenous Prostaglandin E₁ Formulation
Fukushima, Y., Matsukawa,H., Nishizaki,K., Kizaki,T.,Nishimura,C., Yamaguchi,T., **Itai,S.**, Omura,T.,
Imagawa,S.
- 27) Pharmacopeial Forum Vol.25 No.6 (1999)
Report and Recommendation of of the USP Advisory Panel on Physical Test Methods:
Sampling of Chemical Raw Materials
Gregory E. Amidon, Larry L Augsburger, Harry G Brittain, Stephen R. Byrn, C. David Fox,
Garnet E. Peck, Dale Eric Wurster,Michael S. Bergren, David J.W. Grant, Keith Marshall
and **Shigeru Itai**
- 28) Pharmacopeial Forum Vol.26 No.2 (2000)
New General Test Chapter “Tablet Breaking Force” Proposed by the USP Advisory Panel
on Physical Test Method.
Gregory E. Amidon, Larry L Augsburger, Harry G Brittain, Stephen R. Byrn, C. David Fox,
Garnet E. Peck, Dale Eric Wurster,Michael S. Bergren, David J.W. Grant, Keith Marshall
and **Shigeru Itai**
- 29) International Journal of Pharmaceutics, 193(2), 137 (2000)
Physicochemical Proerties and Bioavailability of Carbamazepine Polymorphs and dihydrate.
Ito,S., Kobayasi, Y., **Itai,S.**, Yamamoto,K.
- 30) International Journal of Pharmaceutics, 195(1-2), 81 (2000)
Prediction of Suitable Amount of Water Addition for Wet Granulation.
Miwa,A., Yajima,T., and **Itai,S.**
- 31) J.Pharm.Sci. Technol., Jpn.,60(1), 15 (2000)
Compressibility Assessment of Powder Medicine Using an Infinitesimal Quantity of Sample.
Urabe,M., Ito,S., **Itai,S.**, yuasa,H., Kanaya ,Y
- 32) J.Pharm.Sci. Technol., Jpn.,60(1), 43 (2000)
Characterization of Chloramphenicol Palmitate Form C and Absorption Assessments of
Chloramphenocol Palmitate Polymorphs.
Koda,A., Ito,S., **Itai,S.**, Yamamoto,K.
- 33) Chemical & Pharmaceutical Bulletin, 50(2), 147 (2002)
Method of Evaluation of the Bitterness of Clarithromycin Dry Syrup.
Yajima,T., Hukushima,Y., **Itai,S.**, Kawashima,Y

- 34) Chemical & Pharmaceutical Bulletin, 50(11), 1430 (2002)
Determination of Optimum Processing Temperature for Transformation of Glycerol Monostearate.
Yajima, T., Hukushima, Y., **Itai, S.**, Takeuchi, H., Kawashima, Y
- 35) Chemical & Pharmaceutical Bulletin, 51(11), 1223 (2003)
Optimum Heat Treatment Conditions for Masking the Bitterness of the Clarithromycin Wax Matrix.
Yajima, T., **Itai, S.**, Takeuchi, H., Kawashima, Y.
- 36) International Journal of Pharmaceutics, 263, 183 (2003)
Assessment of Tableting Properties using Infinitesimal Quantities of Powdered Medicine.
Urabe, M., Ito, S., **Itai, S.**, Yuasa, H., Kanaya, Y.
- 37) J. Drug Del. Sci. Tech., 16(5) 357 (2006)
Assessment of Tableting Properties using Infinitesimal Quantities of Powdered Medicine II.
Urabe, M., Ito, S., **Itai, S.**, Yuasa, H.
- 38) Chemical & Pharmaceutical Bulletin, 56(4)530-535 (2008)
Formulation Design of Taste-Masked Particles, Including Famothidine, for an Oral
Fast-Disintegrating Dosage Form.
Mizumoto, T., Tamura, T., Kawai, H., Kajiyama, A., **Itai, S.**
- 39) International Journal of Pharmaceutics, 358, 91-95 (2008).
Novel method for stratum corneum pore size determination using positron annihilation lifetime
spectroscopy.
Itoh, Y., Shimazu, A., Sadzuka, Y., Sonobe T., **Itai S.**
- 40) Chemical & Pharmaceutical Bulletin, 56(7) 946-950(2008)
Formulation design of an oral, fast-disintegrating dosage form containing taste-masked particles of
famotidine.
Mizumoto, T., Tamura, T., Kawai, H., Kajiyama, A., **Itai, S.**
- 41) International Journal of Pharmaceutics 377 180-184 (2009)
Freeze-dried nifedipine-lipid nanoparticles with long-term nano-dispersion stability after reconstitution.
Ohshima, H., Miyagishima, A., Kurita, T., Makino, Y., Iwao, Y., Sonobe, T., and **Itai, S.**
- 42) Japan Society of Pharmaceutical Machinery and Engineering 18 3-4 (2009)
Good Mental Practice-Good Mental Practice for the Person Engaging Himself in Pharmaceutical Fields.
Itai, S.
- 43) International Journal of Pharmaceutics, 386 91-98 (2010):
Lubrication properties of potential alternative lubricants, glycerin fatty acid esters, to magnesium
stearate.
Uchimoto, T., Iwao, Y., Ikegami, Y., Murata, T., Sonobe, T., Miyagishima, A., **Itai, S.**
- 44) European Journal of Pharmaceutics and Biopharmaceutics, 74 461-466(2010)
Physical properties of griseofulvin-lipid nanoparticles in suspension and their novel interaction
mechanism with saccharide during freeze-drying.
Kamiya, S., Kurita, T., Miyagishima, A., **Itai, S.**, Arakawa, M.
- 45) Chemical & Pharmaceutical Bulletin, 58 511-515 (2010)

Novel mathematical model for predicting the dissolution profile of spherical particles under non-sink conditions.

Agata, Y., Iwao, Y., Miyagishima, A., **Itai, S.**

46) International Journal of Pharmaceutics, 391 244-247 . (2010)

Optimal conditions to prepare fine globular granules with a multi-functional rotor processor.

Kimura, S., Iwao, Y., Ishida, M., Uchimoto, T., Miyagishima, A., Sonobe, T., **Itai, S.**

47) International Journal of Pharmaceutics, 392 42-50 (2010)

Preparation and evaluation of biodegradable microspheres containing a new potent osteogenic compound and new synthetic polymers for sustained release.

Umeki, N., Sato, T., Harada, M., Takeda, J., Saito, S., Iwao, Y., **Itai, S.**

48) International Journal of Pharmaceutics, 395 71-77 (2010).

Optimization of a novel wax matrix system using aminoalkyl methacrylate copolymer E and ethylcellulose to suppress the bitter taste of acetaminophen.

Shiino, K., Iwao, Y., Miyagishima, A., **Itai, S.**

49) Food Chemistry, 125, 878-883 (2011).

Novel decaffeination of green tea using a special picking method and shortening of the rolling process.

Miyagishima, A., Fujiki, S., Okimura, A., Arahata, S., Inagaki, S., Iwao, Y., **Itai, S.**

50) International Journal of Pharmaceutics, 404 10-18 (2011).

Preparation and evaluation of biodegradable films containing the potent osteogenic compound BFB0261 for localized delivery.

Umeki, N., Sato, T., Harada, M., Takeda, J., Saito, S., Iwao, Y., **Itai, S.**

51) European Journal of Pharmaceutics and Biopharmaceutics, 78, 492-498 (2011)

A comparative study of glycerin fatty acid ester and magnesium stearate on the dissolution of acetaminophen tablets using the analysis of available surface area.

Uchimoto, T., Iwao, Y., Takahashi, K., Tanaka, S., Agata, Y., Iwamura, T., Miyagishima, A., **Itai, S.**

52) Chemical & Pharmaceutical Bulletin, 59, 553-558 (2011).

Stabilization mechanism of clarithromycin tablet under gastric pH conditions.

Fujiki, S., Iwao, Y., Kobayashi, M., Miyagishima, A., **Itai, S.**

53) International Journal of Pharmaceutics, 409, 81-88 (2011).

Application of principal component analysis enables to effectively find important physical variables for optimization of fluid bed granulator conditions.

Otsuka, T., Iwao, Y., Miyagishima, A., **Itai, S.**

54) International Journal of Pharmaceutics, 414, 63-68, (2011).

A theoretical approach to evaluate the release rate of acetaminophen from erosive wax matrix dosage forms.

- Agata, Y., Iwao, Y., Shiino, K., Miyagishima, A., **Itai, S.**
- 55) International Journal of Pharmaceutics, 416, 252-259 (2011).
Preparation and Evaluation of Swelling induced-Orally Disintegrating Tablets by Microwave Irradiation.
Sano, S., Iwao, Y., Kimura, S., **Itai, S.**
- 56) *Acta Crystallographica Section E*, 68 (2012):o667-o668
Clarithromycin monohydrate: a synchrotron X-ray powder study.
Noguchi, S., Fujiki, S., Iwao, Y., Miura, K., **Itai, S.**
- 57) International Journal of Pharmaceutics, 428, 82-90, (2012).
A novel mathematical model considering change of diffusion coefficient for predicting dissolution behavior of acetaminophen from wax matrix dosage form.
Nitanai, Y., Agata, Y., Iwao, Y., **Itai, S.**
- 58) International Journal of Pharmaceutics, 431, 70-77, (2012).
Preparation and evaluation of granules with pH-dependent release by melt granulation.
Shiino, K., Iwao, Y., Fujinami, Y., **Itai, S.**
- 59) Pharmaceutical Research, 30 502-511 (2013)
Evaluation of Crystallization Behavior on the Surface of Nifedipine Solid Dispersion Powder Using Inverse Gas Chromatography.
Miyanishi, H., Nemoto, T., Mizuno, M., Mimura, H., Kitamura, S., Iwao, Y., Noguchi, S., **Itai, S.**
- 60) International Journal of Pharmaceutics, 441 128-134 (2013)
Newly developed surface modification punches treated with alloying techniques reduce sticking during the manufacture of ibuprofen tablets.
Uchimoto, T., Iwao, Y., Yamamoto, T., Sawaguchi, K., Moriuchi, T., Noguchi S., **Itai, S.**
- 61) International Journal of Pharmaceutics, 445 93-98 (2013)
Investigation of internal structure of fine granules by microtomography using synchrotron X-rayradiation.
Noguchi, S., Kajihara, R., Iwao, Y., Fujinami, Y., Suzuki, Y., Terada, Y., Uesugi, K., Miura, K., **Itai, S.**
- 62) International Journal of Pharmaceutics, 448 1-8 (2013)
An easy-to-use approach for determining the disintegration ability of disintegrants by analysis of available surface area.
Iwao, Y., Tanaka, S., Uchimoto, T., Noguchi, S., **Itai, S.**
- 63) International Journal of Pharmaceutics, 448 132-141 (2013)
Design and evaluation of microwave-treated orally disintegrating tablets containing polymeric disintegrant and mannitol.

- Sano, S., Iwao, Y., Noguchi, S., Kimura, S., **Itai, S.**
- 64) International Journal of Pharmaceutics, 451 92-94 (2013)
Lipid nanoparticles with no surfactant improve oral absorption rate of poorly water-soluble drug.
Funakoshi, Y., Iwao, Y., Noguchi, S., **Itai, S.**
- 65) Advanced Powder Technology, 25, 430-435 (2014)
Effects of the centrifugal coating and centrifugal fluidized bed coating methods on the physicochemical properties of sustained-release microparticles using a multi-functional rotor processor.
Yamada, N., Mise, R., Ishida, M., Iwao, Y., Noguchi, S., **Itai, S.**
- 66) Chemical & Pharmaceutical Bulletin, 61, 1143-1148 (2013)
Determination of useful ranges of mixing conditions for glycerin fatty acid ester by multiple regression analysis.
Uchimoto, T., Iwao, Y., Hattori, H., Noguchi, S., **Itai, S.**
- 67) Pharmacology & Pharmacy, 4, 578-583 (2013)
One-step preparation of poly-lactic-co-glycolic-acid microparticles to prevent the initial burst release of encapsulated water-soluble proteins.
Takabe, H., Ohkuma, M., Iwao, Y., Noguchi, S., **Itai, S.**
- 68) Journal of Pharmaceutical Sciences, 103, 580-586 (2013)
Polymorphic transformation of antibiotic clarithromycin under acidic condition.
Noguchi, S., Takiyama, K., Fujiki, S., Iwao, Y., Miura, K., **Itai, S.**
- 69) Chemical & Pharmaceutical Bulletin, 62, 1-7 (2014)
Evaluation of the physicochemical properties of fine globular granules prepared by a multi-functional rotor processor.
Kimura, S., Iwao, Y., Ishida, M., Noguchi, S., **Itai, S.**, Uchida, S., Yamada, M., Namiki, N.
- 70) International Journal of Pharmaceutics, 464, 19-26 (2014)
Development and evaluation of a tacrolimus cream formulation using a binary solvent system.
Yamanaka, M., Yokota, S., Iwao, Y., Noguchi, S., **Itai, S.**
- 71) Journal of Pharmaceutical Sciences, 103 (2), 580-586 (2014)
Polymorphic transformation of antibiotic clarithromycin under acidic condition.
Noguchi, S., Takiyama, K., Fujiki, S., Iwao, Y., Miura, K., **Itai, S.**
- 72) International Journal of Pharmaceutics, 464, 19-26 (2014)
Development and evaluation of a tacrolimus cream formulation using a binary solvent system.
Yamanaka, M., Yokota, S., Iwao, Y., Noguchi, S., **Itai, S.**

- 73) Chemical & Pharmaceutical Bulletin, 62 (5), 1-8 (2014)
Development of highly stable nifedipine solid-lipid nanoparticles.
Barman, R.K., Iwao, Y., Funakoshi, Y., Ranneh, A.H., Noguchi, S., Wahed, M.I.I., **Itai, S.**
- 74) International Journal of Pharmaceutics, 468 234-242 (2014)
Impact of active ingredients on the swelling properties of orally disintegrating tablets prepared by microwave treatment.
Sano, S., Iwao, Y., Noguchi, S., Kimura, S., **Itai, S.**
- 75) Pharmacology & Pharmacy, 5, 455-461 (2014)
In vivo pharmacokinetic and hemocompatible evaluation of lyophilization induced nifedipine solid-lipid nanoparticle.
Barman, RK., Iwao, Y., Islam, Md., Funakoshi, Y., Noguchi S., Wahed, MII., **Itai, S.**
- 76) Chemical & Pharmaceutical Bulletin, 63 (2), 95-101 (2015)
Preparation and evaluation of highly drug-loaded fine globular granules using a multi-functional rotor processor.
Iwao, Y., Kimura, S., Ishida, M., Mise, R., Yamada, M., Namiki, N., Noguchi, S., **Itai, S.**
- 77) International Journal of Pharmaceutics, 478(2), 530-539 (2015)
Fine granules showing sustained drug release prepared by high-shear melt granulation using triglycerin full behenate and milled microcrystalline cellulose.
Aoki, H., Iwao, Y., Uchimoto, T., Noguchi, S., Kajihara, R., Ishida, M., Takahashi, K., Terada, Y., Suzuki, Y., **Itai, S.**
- 78) Pharmaceutical and Medical Device Regulatory Science, 46, 171-179 (2015)
Study of proper use and storage stability of surfactant in dissolution test.
Iwao, Y., Banno, N., Kakinuma, M., Noguchi, S., **Itai, S.**
- 79) International Journal of Pharmaceutics, 481(1-2), 49-56 (2015)
Structural changes of polymer-coated microgranules and excipients on tableting investigated by microtomography using synchrotron X-ray radiation.
Kajihara, R., Noguchi, S., Iwao, Y., Suzuki, Y., Terada, Y., Uesugi, K., **Itai, S.**
- 80) International Journal of Pharmaceutics, 483 , 49-56 (2015)
A newly developed lubricant, chitosan laurate, in the manufacture of acetaminophen tablets.
Bani-Jaber, A., Kobayashi, A., Yamada, K., Haj-Ali, D.N., Iwao, Y., Noguchi, S., **Itai, S.**
- 81) European Journal of Pharmaceutics and Biopharmaceutics, 92 , 22-27 (2015)
Clarithromycin highly-loaded gastro-floating fine granules prepared by high-shear melt granulation can enhance the efficacy of Helicobacter pylori eradication.

Aoki, H., Iwao, Y., Mizoguchi, M., Noguchi, S., **Itai, S.**

82) Journal of Pharmaceutical Sciences, 104, 2641-2644 (2015)

Suppressed release of clarithromycin from tablets by crystalline phase transition of metastable polymorph form I.

Fujiki, S., Watanabe, N., Iwao, Y., Noguchi, S., Mizoguchi, M., Iwamura, T., **Itai, S.**

83) Chemical & Pharmaceutical Bulletin, 63, 731-736 (2015)

Effect of alkyl chain length and unsaturation of the phospholipid on the physicochemical properties of lipid nanoparticles.

Funakoshi, Y., Iwao, Y., Noguchi, S., **Itai, S.**

84) Chemical & Pharmaceutical Bulletin, 63, 799-806 (2015)

Preparation and evaluation of newly developed chitosan salt coating dispersions for colon delivery without requiring overcoating.

Yamada, K., Iwao, Y., Bani-Jaber, A., Noguchi, S., **Itai, S.**

85) International Journal of Pharmaceutics, 495, 204-217 (2015)

Effect of surfactants or a water soluble polymer on the crystal transition of clarithromycin during a wet granulation process.

Nozawa, K., Iwao, Y., Noguchi, S., **Itai, S.**

86) International Journal of Pharmaceutics, 495, 140-143 (2015)

Structural investigation of spherical hollow excipient Mannit Q by X-ray microtomography.

Kajihara, R., Noguchi, S., Iwao, Y., Yasuda, Y., Segawa, M., **Itai, S.**

87) Chemical & Pharmaceutical Bulletin, 63, 1070-1075 (2015)

Investigation of physicochemical drug properties to prepare fine globular granules composed of only drug substance in fluidized bed rotor granulation.

Mise, R., Iwao, Y., Kimura, S., Osugi, Y., Noguchi, S., **Itai, S.**

88) Advanced Powder Technology, 27, 193-198 (2016)

Impact of process parameters on Mg-St content and tablet surface wettability in the external lubrication method for a rotary tablet press.

Kamiya, T., Kondo, H., Hiroma, H., Yamashita, K., Hakomori, T., Sako, K., Iwao, Y., Noguchi, S., **Itai, S.**

89) Acta Crystallographica Section C, C72, 124-127 (2016)

Nobiletin: a citrus flavonoid displaying potent physiological activity.

Noguchi, S., Atsumi, H., Iwao, Y., Kan, T., **Itai, S.**

90) Chemical & Pharmaceutical Bulletin, 64, 1226-1229 (2016)

Quantitative appearance inspection for film coated tablets.

Yoshino, H., Yamashita, K., Iwao, Y., Noguchi, S., **Itai, S.**

91) Chemical & Pharmaceutical Bulletin, 64,577-584 (2016)

Preparation and Characterizations of SN-38 Encapsulated Cubosomes Containing α -Monoglyceride Additives.

Ali, MA., Iwao, Y., Noguchi, S., Oka, T., **Itai, S.**

92) International Journal of Pharmaceutics, 509, 328-337 (2016)

Sustained-release microsphere formulation containing an agrochemical by polyurethane polymerization during an agitation granulation process.

Terada, T., Tagami, M., Ohtsubo, T., Iwao, Y., Noguchi, S., **Itai, S.**

93) Chemical & Pharmaceutical Bulletin, 64, 1288-1297 (2016)

Preparation of orally disintegrating tablets containing powdered tea leaves with enriched levels of bioactive compounds by means of microwave irradiation technique.

Tanaka, H., Iwao, Y., Izumikawa, M., Sano, S., Ishida, H., Noguchi, S., **Itai, S.**

94) International Journal of Pharmaceutics, 511, 10-22 (2016)

Application of water-insoluble polymers to orally disintegrating tablets treated by high-pressure carbon dioxide gas.

Ito, Y., Maeda, A., Kondo, H., Iwao, Y., Noguchi, S., **Itai, S.**

95) International Journal of Pharmaceutics, 512, 108-117 (2016)

Saturated fatty acids and fatty acid esters promotes the polymorphic transition of clarithromycin metastable form I crystal.

Watanabe, M., Mizoguchi, M., Aoki, H., Iwao, Y., Noguchi, S., **Itai, S.**

96) Acta Crystallographica Section C, 743-747 (2016)

Structure of anti-tumor drug 7-ethyl-10-hydroxycamptothecin monohydrate and its solid state hydrolysis mechanism on heating.

Ali, MA., Noguchi,S., Watanabe, M., Iwao, Y., **Itai, S.**

97) International Journal of Pharmaceutics, 515,501-505 (2016)

The use of surfactants to enhance the solubility and stability of the water-insoluble anticancer drug SN38 into liquid crystalline phase nanoparticles, cubosomes.

Ranneh, AH. Iwao, Y., Noguchi, S., Oka, T., **Itai, S.**

98) Chemical & Pharmaceutical Bulletin, 65, 49-55 (2017)

Evaluation of the thermosensitive release properties of microspheres containing an agrochemical compound.

Terada, T., Ohtsubo, T., Iwao, Y., Noguchi,S., **Itai, S.**

99) Chemical & Pharmaceutical Bulletin,65, 42-48 (2017)

Enhancing the Solubility and Oral Bioavailability of Poorly Water-Soluble Drugs using Monoolein Cubosomes.

Ali, MA., Kataoka, N., Ranneh, AH., Iwao, Y., Noguchi, S., Oka, T., **Itai, S.**

100) International Journal of Pharmaceutics, 521, 33-39 (2017)

Effect of gel formation on the dissolution behavior of clarithromycin tablets.

Inukai, K., Takiyama, K., Noguchi, S., Iwao, Y., **Itai, S.**

101) Chemical & Pharmaceutical Bulletin, (2017) in press

Evaluation of maltose-induced chemical degradation at the interface of bilayer tablets.

Matsuzaki, N., Yamamoto, Y., Murayama, D., Katakawa, Y., Mimura, H., Kimura, S., Iwao, Y., Itai S.

102) International Journal of Pharmaceutics, (2017) in press

Mathematical model to analyze the dissolution behavior of metastable crystals or amorphous drug accompanied with a solid-liquid interface reaction.

Hirai, D., Iwao, Y., Kimura, S., Noguchi, S., **Itai, S.**