The Thirteenth Edition of the Japanese Pharmacopoeia was promulgated on March 13, 1996 by Ministerial Notification No. 73 of the Ministry of Health and Welfare. To keep pace with progress in medical and pharmaceutical sciences, in November 1996, the Council, at a meeting of the Committee on Japanese Pharmacopoeia (JP) established the principles for the preparation of the JP Fourteenth Edition, setting out the characteristics and roles of the JP, standards for the selection of articles, the items and date of the revision, and the organization of the Subcommittee on JP, as well as agreeing on the publication, if necessary, of a supplement to the current JP.

At the above meeting, the following "five pillars" were established as the basic principles of the JP Fourteenth Edition: 1) making it more substantial by including all drugs which are important from the viewpoint of health care and medical treatment, 2) improving the quality of analytical tests and reducing test items by positively introducing tests using instrumental techniques, 3) ensuring transparency regarding the revision of the JP by opening its draft to the public, 4) taking into consideration its compatibility with equivalent publications in the rest of the world, and 5) setting up a scheme for furnishing information regarding the JP, including drug information. It was decided at the meeting that each panel set up under the Subcommittee on JP should make efforts, on the basis of these principles, to ensure that the JP is used more effectively in the fields of health care and medical treatment by taking appropriate measures, including getting the understanding and cooperation of other parties concerned.

It was agreed that the JP should have the characteristics of an official standard for the description and quality of drugs which are generally recognized to be medically significant from the viewpoint of medical treatment, that its role should be to specify not only the quality standards of drugs which are filed in it, but also the quality level of all drugs in principle, as well as the standard methods of tests, and that at the same time, it should help to ensure international compatibility regarding quality of drugs.

It was also agreed that JP articles should cover drugs which are important from the viewpoint of health care and medical treatment based on demand, frequency of use and clinical results, and which meet the established standards as regards their description and quality, that especially drugs whose review has been finished or is to be finished before the JP Fourteenth Edition is implemented be filed in it in principle, except those which are not widely used, that opinions from medical treatment-related groups be referred to in selecting articles as occasion may demand, and that the completion of the JP Fourteenth Edition be slated for April 2001.

Under the Subcommittee on JP, the following twelve panels and two provisional panels were established: Panel on the Principles of Revisions; Panel on the Selection of Articles; First Panel on Medicinal Chemicals; Second Panel on Medicinal Chemicals; Panel on Material Sciences; Panel on Biological Tests; Panel on Physico-chemical Tests; Panel on Preparations; Panel on Crude Drugs; Panel on Nomenclature; Panel on Excipients; Panel on Biologically Derived Drugs; Provisional First Panel on Physico-chemical Tests; Provisional First Panel on Crude Drugs. The names of two of the above panels, Panel on Nomenclature and Panel on Excipients, were changed to Subcommittee on Japanese Accepted Names of Drugs and Subcommittee on Pharmaceutical Excipients, respectively, due to the reorganization of the Central Pharmaceutical Affairs Council (CPAC) in November 1999.

In the Committee on Japanese Pharmacopoeia, Mitsuru Uchiyama took the role of chairman from July 1995 to October 1997 and Tadao Terao from November 1997 to December 2000.

With the reform of central government ministries and agencies in January 2001, the Ministry of Health and Welfare became the Ministry of Health, Labour and Welfare, and the Committee on Japanese Pharmacopoeia (CJP) came under the authority of the Minister of Health, Labour and Welfare. At the same time, CPAC became the Pharmaceutical Affairs and Food Sanitation Council (PAFSC) and Mitsuru Uchiyama was nominated as chairman of the CJP.

It was decided that the JP will be revised not only every five years, in line with the revision policy of the JP Eleventh Edition, but also more frequently, if necessary, to take account of recent progress of science and in the interests of international harmonization.

In accordance with the revision principles, the panels continued discussions on selection of articles, and revisions for general notices, general rules for preparations, general tests, and monographs on drugs. Draft revisions covering subjects in the general no-
tices, the general rules for preparations, the general tests, and monographs on drugs, for which discussions were finished between October 1995 and December 1996, were prepared for a supplement to the book. They were examined by the Committee on JP in July 1997, followed by the Executive Committee of the Central Pharmaceutical Affairs Council (CPAC; this became the Pharmaceutical Affairs and Food Sanitation Council (PAFSC) in January 2001), and then submitted to the Minister of Health and Welfare in September 1997, and the supplement was named "Supplement I to the Japanese Pharmacopoeia Thirteenth Edition" and promulgated on December 26, 1997 by Ministerial Notification No.254 of the Ministry of Health and Welfare.

Numbers of discussions in the Panels to prepare supplement drafts were as follows: Panel on the Principles of Revisions, 6 times; First Panel on Medicinal Chemicals, 9 times; Second Panel on Medicinal Chemicals, 8 times; Panel on Material Sciences, 5 times; Panel on Biological Tests, 9 times; Panel on Physico-chemical Tests, 4 times; Panel on Preparations, 5 times; Panel on Crude Drugs, 11 times; Panel on Nomenclature, 6 times; Panel on Excipients, 9 times; Panel on Biologically Derived Drugs, 4 times.

In consequence of this revision, the JP Thirteenth Edition with Supplement I carries 826 articles in Part I owing to the addition of 2 articles, and 469 articles in Part II owing to the addition of one article. It should be noted that in the preparation of the drafts for the revised edition, generous cooperation was given by the Technical Committee of the Pharmaceutical Manufacturer’s Association of Tokyo and of Osaka, the Crude Drugs Association of Tokyo, the Japan Pharmaceutical Excipients Council, the Federation of Crude Drugs Associations of Japan, the Japan Flavor and Fragrance Manufacturer’s Association, the Japan Medical Plants Federation, the Japan Pharmaceutical Manufacturer’s Association, the Japanese Society of Hospital Pharmacists, the Japan Pharmaceutical Association, and the Japan Oilseed Processors Association.

The revision work was continued in the Subcommittee on JP. Draft revisions covering subjects in the general notices, the general rules for preparations, the general tests, and monographs on drugs, for which discussions were finished between January 1999 and December 1998, were prepared for a supplement to the book. They were examined by the Committee on JP in July 1999, followed by the Executive Committee of CPAC, and then submitted to the Minister of Health and Welfare in September 1999, and the supplement was named "Supplement II to the Japanese Pharmacopoeia Thirteenth Edition" and promulgated on December 21, 1999 by Ministerial Notification No.248 of the Ministry of Health and Welfare.

Numbers of discussions in the Panels to prepare supplement drafts were as follows: Panel on the Principles of Revisions, 8 times; First Panel on Medicinal Chemicals, 17 times; Second Panel on Medicinal Chemicals, 20 times; Panel on Material Sciences, 10 times; Panel on Biological Tests, 9 times; Panel on Physico-chemical Tests, 11 times; Panel on Preparations, 9 times; Panel on Crude Drugs, 9 times; Panel on Nomenclature, 9 times; Panel on Excipients, 11 times; Panel on Biologically Derived Drugs, 12 times; Provisional First Panel on Physico-chemical Tests, 1 time; Provisional First Panel on Crude Drugs, 6 times.

In consequence of this revision, the JP Thirteenth Edition with Supplements I and II carries 839 articles in Part I owing to the addition of 25 articles and the deletion of 12 articles; and 468 articles in Part II owing to the deletion of one article. It should be noted that in the preparation of the drafts for the revised edition, generous cooperation was given by the Technical Committee of the Pharmaceutical Manufacturer’s Association of Tokyo and of Osaka, the Crude Drugs Association of Tokyo, the Japan Pharmaceutical Excipients Council, the Federation of Crude Drugs Associations of Japan, the Japan Flavor and Fragrance Manufacturer’s Association, the Japan Medical Plants Federation, the Japan Pharmaceutical Manufacturer’s Association, the Japanese Society of Hospital Pharmacists, the Japan Pharmaceutical Association, and the Japan Oilseed Processors Association.

The revision work was continued in the Subcommittee on JP. Draft revisions covering subjects in the general notices, the general rules for preparations, the general rules for crude drugs, the general tests, and monographs on drugs, for which discussions were finished between January 1999 and May 2000, were prepared as addition and revision drafts for the Fourteenth Edition of JP. They were examined by the Committee on JP in October 2000, followed by the Executive Committee of CPAC in December 2000, and then submitted to the Minister of Health and Welfare.

Numbers of discussions in the Panels to prepare supplement drafts were as follows: Panel on the Principles of Revisions, 6 times; First Panel on Medicinal Chemicals, 12 times; Second Panel on Medicinal Chemicals, 16 times; Panel on Material Sciences, 7 times; Panel on Biological Tests, 6 times; Panel on Physico-chemical Tests, 8 times; Panel on Preparations, 5 times; Panel on Crude Drugs, 6 times; Panel on Nomenclature, 4 times; Panel on Excipients, 5 times; Panel on Biologically Derived Drugs, 7 times; Provisional First Panel
on Antibiotics, 14 times; Provisional First Panel on Crude Drugs, 6 times. Numbers of additional discussions in the subcommittees for the same purpose were as follows: Subcommittee on Pharmaceutical Nomenclature, 4 times; Subcommittee on Pharmaceutical Excipients, 3 times.

In consequence of this revision, the JP Fourteenth Edition carries 859 articles in Part I owing to the addition of 37 articles and the deletion of 17 articles; and 469 articles in Part II owing to the addition of one article.

It should be noted that in the preparation of the drafts for the new edition, generous cooperation was given by the Technical Committee of the Pharmaceutical Manufacturer’s Association of Tokyo and of Osaka, the Crude Drugs Association of Tokyo, the Japan Pharmaceutical Excipients Council, the Federation of Crude Drugs Associations of Japan, the Japan Antibiotics Research Association, the Japan Flavor and Fragrance Manufacturer’s Association, the Japan Medical Plants Federation, the Japan Pharmaceutical Manufacturer’s Association, the Japanese Society of Hospital Pharmacists, the Japan Pharmaceutical Association, and the Japan Oilseed Processors Association.

The principles of description and the salient points of the revision in this volume are as follows:

1. The JP Fourteenth Edition comprises the following items, in order: Notification of the Ministry of Health and Welfare; Contents; Preface; General Notices; General Rules for Preparations; General Tests, Processes and Apparatus; Monographs on Drugs in Part I, and General Notices; General Rules for Crude Drugs; General Rules for Preparations; General Tests, Processes and Apparatus; Monographs on Drugs in Part II, followed by Infrared Reference Spectra in Part I and Part II; Ultraviolet-visual Reference Spectra in Part I and Part II; General Information, and the Index.

2. The articles in General Rules for Preparations, in General Tests, Processes and Apparatus, Monographs on Drugs, Infrared Reference Spectra and Ultraviolet-visual Reference Spectra are respectively placed in alphabetical order.

3. The following items in each monograph are put in the order shown below, except that unnecessary items are omitted depending on the nature of the drug:
   (1) English title
   (2) Commonly used name(s)
   (3) Latin title (only for Crude Drugs)
   (4) Title in Japanese
   (5) Structural formula or empirical formula
   (6) Molecular formula and molecular mass
   (7) Chemical name
   (8) Origin
   (9) Limits of the content of the ingredient(s) and/or the unit of potency
   (10) Labeling requirements
   (11) Method of preparation
   (12) Description
   (13) Identification tests
   (14) Specific physical and/or chemical values
   (15) Purity tests
   (16) Loss on drying, loss on ignition, and/or water
   (17) Residue on ignition, total ash, and/or acid-insoluble ash
   (18) Special tests
   (19) Isomer ratio
   (20) Assay or the content of the ingredient(s)
   (21) Containers and storage
   (22) Expiration date
   (23) Others

4. In each monograph on a drug, the following physical and chemical values representing the properties and quality of the drug are given in the order indicated below, except that unnecessary items are omitted depending on the nature of the drug:
   (1) Alcohol number
   (2) Absorbance
   (3) Congealing point
   (4) Refractive index
   (5) Osmolarity
   (6) Optical rotation
   (7) Viscosity
   (8) pH
   (9) Specific gravity
   (10) Boiling point
   (11) Melting point
   (12) Acid value
   (13) Saponification value
   (14) Ester value
   (15) Hydroxyl value
   (16) Iodine value

5. Identification tests comprise the following items, which are generally put in the order given below:
   (1) Coloration reactions
   (2) Precipitation reactions
   (3) Decomposition reactions
   (4) Derivative
   (5) Visible, ultraviolet or infrared spectra
   (6) Special reactions
   (7) Cations
   (8) Anions
6. Purity tests comprise the following items, which are generally put in the order given below, except that unnecessary items are omitted depending on the nature of the drug:

(1) Color
(2) Odor
(3) Clarity and/or color of solution
(4) Acidity or alkalinity
(5) Acid
(6) Alkali
(7) Chloride
(8) Sulfate
(9) Sulfite
(10) Nitrate
(11) Nitrite
(12) Carbonate
(13) Bromide
(14) Iodide
(15) Soluble halide
(16) Thiocyanate
(17) Selenium
(18) Cationic salts
(19) Ammonium
(20) Heavy metals
(21) Iron
(22) Manganese
(23) Chromium
(24) Bismuth
(25) Tin
(26) Aluminum
(27) Zinc
(28) Cadmium
(29) Mercury
(30) Copper
(31) Lead
(32) Silver
(33) Alkaline earth metals
(34) Arsenic
(35) Foreign matter
(36) Related substances
(37) Other mixtures
(38) Readily carbonizable substances

7. To the General Notices a paragraph explaining the meaning of the statement in a monograph “Being specified separately” is added.

8. Revisions in the General Notices are as follows:

(1) A part of paragraph 3 was revised owing to the revision in the General Notices for Preparations.

(2) A part of paragraph 5 was revised as “Atomic masses adopted in JP14 conform to the table of Standard Atomic Weights 1999.”

(3) In paragraphs 5, 6 and 26, the word “weight” was changed to “mass”.

9. The following items of the General Rules for Preparations are partially revised:

(1) General Notices for Preparations: Prescribed the conditions that permit omission of the sterility test for the release of the product.

(2) Injections: Prescribed that principally injections should meet the requirement of the bacterial endotoxins test.

10. The following items of the General Tests, Processes and Apparatus are partially revised:

(1) Bacterial Endotoxins Test

(2) Endpoint Detection Method in Titrimetry

(3) Gas Chromatography

(4) Infrared Spectrophotometry

(5) Liquid Chromatography

(6) pH Determination

(7) Ultraviolet-visible Spectrophotometry

(8) Viscosity Determination

11. The following items of the General Tests, Processes and Apparatus are renamed:

(1) Endpoint Detection Methods in Titrimetry

(2) Mass Variation Test

(3) Ultraviolet-visible Spectrophotometry

12. The following tests are added to the General Tests, Processes and Apparatus:

(1) Microbial Assay for Antibiotics

(2) Microbial Limit Test for Crude Drugs

13. The following Reference Standards are deleted:

Cyclandelate
G-Strophanthin

14. The following Reference Standards are added:

Amikacin Sulfate
Amoxicillin
Amphotericin B
Ampicillin
Aspoxicillin
Aztreonam
Bacampicillin Hydrochloride
Cefadroxil
Cefalexin
Cefapirin Sodium
Cefatrizine Propylene Glycolate
Cefazolin
Cefcapene Pivoxil Hydrochloride
Cefdinir
Cefditoren Pivoxil
Cefepime Dihydrochloride
Cefetamet Pivoxil Hydrochloride
Cefixime
Cefmetazole
Cefminox Sodium
Cefoperazone
Cefoselis Sulfate
Cefotiam Hydrochloride
Cefozopran Hydrochloride
Cepirrome Sulfate
Cefradine
Cefsludin Sodium
Ceftazidime
Ceftibuten Hydrochloride
Ceftizoxime
Ceftrixone Sodium
Cefuroxime Sodium
Clarithromycin
Cloxacillin Sodium
Colistin Sodium Methanesulfonate
Cycloserine
Dicloxacillin Sodium
Erythromycin
Faropenem Sodium
Fosfomycin Phenethylammonium
Guaifenesin
Human Insulin
Idarubicin Hydrochloride
Isepsamcin Sulfate
Josamycin
Kitasamycin
Lithium Clavulanate
Mecobalamin
Menatetrenone
Meropenem Trihydrate
Midecamycin
Midecamycin Acetate
Minocycline Hydrochloride
Mupirocin Lithium
Neostigmine Methylsulfate
Netilmicin Sulfate
Nystatin
Panipenem
Pentobarbital
Piperacillin
Rokitamycin
Roxithromycin
Sisomicin Sulfate
Sipironolactone
Subactam
Sultamicillin Tosilate
Swertiamarin
Teicoplanin
Testosterone Propionate
Tetracycline Hydrochloride

Ticarcillin Sodium
Zinostatin Stimalamer

15. English and Latin titles of drugs are derived, in principle, from International Nonproprietary Names (INN) for Pharmaceutical Substances recommended by the World Health Organization. Japanese titles are derived from the Japanese version of this book. The chemical names are based on the rules of the International Union of Pure and Applied Chemistry (IUPAC).

16. Molecular formulas of organic compounds begin with C and then H, followed by other involved elements in the alphabetical order of the symbols of the elements.

17. Structural formulas of drugs represent, as far as possible, steric configurations. Molecular masses are calculated based on the table of “Standard Atomic Weights 1999” published by The Chemical Society of Japan.

18. Test procedures in monographs in Part I are, in principle, written in full even in corresponding monographs in Part II, and vice versa. The test procedures in monographs for preparations are also written in full even within the same part, except in the monographs for preparations having a corresponding monograph of their principal material substances.

19. In Official Monographs, names of some of the reagents and the test solutions are changed to the latest names based on the JIS, and the word “weight” is changed to “mass” to adjust to the international metrology.

20. The following articles are deleted from Official Monographs

Part I
Bencyclane Fumarate
Bencyclane Fumarate Tablets
Betanidine Sulfate
Betanidine Sulfate Tablets
Brovincamine Fumarate
Cinnarizine
Cyclandelate
Dextran 70 Injection
G-Strophanthin
G-Strophanthin Injection
Moxisylyte Hydrochloride
Pentoxifylline
Phenoxybenzamin Sulfate Potassium
Tetracycline
Tetracycline Metaphosphate
Tetragastrin
Trimetaphan Camsilate
21. The following articles are newly added to Official Monographs:

**Part I**
- Afloqualone
- Alprazolam
- Captopril
- Cefazolin Sodium Hydrate
- Cefepapene Pivoxil Hydrochloride
- Cefdinir
- Cefditoren Pivoxil
- Cefepime Dihydrochloride
- Cefetamet Pivoxil Hydrochloride
- Cefoselis Sulfate
- Cefozopran Hydrochloride
- Cefpirome Sulfate
- Cefituben
- Clarithromycin
- Dopamine Hydrochloride Injection
- Famotidine Powder
- Famotidine Tablets
- Famotidine for Injection
- Faropenem Sodium
- Idarubicin Hydrochloride
- Insulin Human (Genetical Recombination)
- Iopamidol
- Methotrexlate Hydrochloride
- Mecobalamin
- Mefuside Tablets
- Menatetrenone
- Mequitanize
- Meropenem Trihydrate
- Mupirocin Calcium Hydrate
- Naloxone Hydrochloride
- Nicardipine Hydrochloride Injection
- Norfloxacin
- Pencuronium Bromide
- Panipenem
- Pentobarbital Calcium
- Tecloplacin
- Zinostatin Stimalamer

**Part II**

**β-Galactosidase** (Penicillium)

22. The following monographs are revised by an addition or a change in the Description or other items:

**Part I**
- Acetohexamide
- Acetylcholine Chloride for Injection
- Acetylphtabsamycin
- Ambenonium Chloride
- Amikacin Sulfate
- Amoxicillin
- Amphoterin B
- Aspoxicillin
- Azathioprine
- Aztreonam
- Bacampicillin Hydrochloride
- Baclofen
- Beclometasone Dipropionate
- Bufexamac Cream
- Bufexamac Ointment
- Camostat Mesilate
- *d*-Camphor
- *dl*-Camphor
- Cefadroxil
- Cefalexin
- Cefazolin Sodium
- Cefazolizine Propylene Glycolate
- Cefazolin Sodium
- Cefixime
- Cefmetazole Sodium
- Cefminox Sodium
- Cefoperazone Sodium
- Cefotium Hydrochloride
- Cefradine
- Cefsulodin Sodium
- Cefazidime
- Cefotaxime Sodium
- Ceftriaxone Sodium
- Cefuroxime Sodium
- Chlorpropamide Tablets
- Cloxacillin Sodium
- Colistin Sodium Methanesulfonate
- Cortisone Acetate
- Cycloserine
- Dextromethorphan Hydrobromide
- Diclofenac Sodium
- Dicloxacillin Sodium
- Distigmine Bromide
- Distigmine Bromide Tablets
- Dopamine Hydrochloride
- Ephedrine Hydrochloride
- Ephedrine Hydrochloride Injection
- 10% Ephedrine Hydrochloride Powder
- Ephedrine Hydrochloride Tablets
- Erythromycin Ethylsuccinate
- Erythromycin Stearate
- Famotidine
- Fluocinolone Acetonide
- Fluocinonide
- Fluoxymesterone
- Flurazepam Hydrochloride
- Fosfomycin Calcium
- Fosfomycin Sodium
- Fructose Injection
- Gabexate Mesilate
Glibenclamide
Glucose Injection
Guaiifenesin
Hydrocortisone
Hydrocortisone Succinate
Ibuprofen
Indometacin Capsules
Isepicin Sulfate
Kallidinogenase
Kitasamycin
Lactulose
Levallophan Tartrate Injection
Lidocaine Injection
Loxoprofen Sodium
Magnesium Sulfate
Magnesium Sulfate Injection
Mefruside
Meglumine Amidotrizoate Injection
Meglumine Iotalamate Injection
Meglumine Sodium Amidotrizoate Injection
Midecamycin
Midecamycin Acetate
Minocycline Hydrochloride
Morphine Hydrochloride
Neostigmine Methylsulfate
Neostigmine Methylsulfate Injection
Netilmicin Sulfate
Nicardipine Hydrochloride
Niceritrol
Nicotinic Acid Injection
Nystatin
Pethidine Hydrochloride Injection
Phenolsulfophthalein
Phenolsulfophthalein Injection
Piperacillin Sodium
Potassium Clavulanate
Prednisolone
Prednisolone Tablets
Progesterone Injection
Propantheline Bromide
Rokitamycin
Roxithromycin
Sisomicin Sulfate
Sodium Iotalamate Injection
Sodium Salicylate
Spironolactone
Sulbactam Sodium
Sultamicillin Tosilate
Terbutaline Sulfate
Testosterone Enanthate Injection
Testosterone Propionate Injection
Tetracycline Hydrochloride
Ticarcillin Sodium
Tipepidine Hibenzate Tablets
Todralazine Hydrochloride
Tolazamide
Triamcinolone Acetonide

Part II
Absorbent Cotton
Capsicum
Capsicum Tincture
Corydalis Tuber
Diluted Opium Powder
β-Galactosidase (Aspergillus)
Magnesium Stearate
Opium Alkaloids Hydrochlorides
Opium Alkaloids and Atropine Injection
Opium Alkaloids and Scopolamine Injection
Opium Ipecac Powder
Opium Tincture
Orange Peel Syrup
Panax Rhizome
Powdered Capsicum
Powdered Opium
Powdered Swertia Herb
Propylene Glycol
Purified Absorbent Cotton
Sodium Lauryl Sulfate
Sterile Absorbent Cotton
Sterile Purified Absorbent Cotton
Swertia Herb
Weak Opium Alkaloids and Scopolamine Injection

23. The following monographs are revised in Identification owing to introduction of the Infrared Reference Spectra:

Part I
Alpenolol Hydrochloride
Amantadine Hydrochloride
Ambenonium Chloride
Bamethan Sulfate
Beclometasone Dipropionate
Benzbromarone
Betamethasone
Betamethasone Dipropionate
Betamethasone Sodium Phosphate
Biperiden Hydrochloride
Bromocriptine Mesilate
Bucumolol Hydrochloride
Bufetolol Hydrochloride
Bufexamac
Bumetanide
Bupranolol Hydrochloride
Calcium Folinate
Calcium Polystyrene Sulfonate
Carteolol Hydrochloride
Chlormadinone Acetate
Chlorpheniramine Maleate
d-Chlorpheniramine Maleate
Cholecalciferol
Clonidine Hydrochloride
Cloperastine Hydrochloride
Clotrimazole
Cortisone Acetate
Croconazole Hydrochloride
Cyclopentolate Hydrochloride
Deferoxamine Mesilate
Dexamethasone
Diclofenac Sodium
Dihydroergotamine Mesilate
Dilazep Hydrochloride
Dinoprost
Diphenhydramine Hydrochloride
Dipyridamole
Disopyramide
Dopamine Hydrochloride
Drostanolone Propionate
Duphaston
Ephedrine Hydrochloride
Ergocalciferol
Estriol
Flucinolone Acetonide
Fluoxymesterone
Flurazepam Hydrochloride
Glibenclamide
Guainfenesin
Haloxazolam
Hydrocortisone
Hydrocortisone Butyrate
Hydrocortisone Sodium Phosphate
Hydrocortisone Sodium Succinate
Hydrocortisone Succinate
Hypermecromone
Indenolol Hydrochloride
Iodamide
Ipratropium Bromide
Isosorbide
Ketoprofen
Lorazepam
Mefruside
Mepitiostane
Mepivacaine Hydrochloride
Mestranol
Metenolone Acetate
Methotrexate
Metildigoxin
Naproxen
Nicomol
Nifedipine
Norgestrel
Nortriptyline Hydrochloride
Orciprenaline Sulfate
Oxapium Iodide
Oxrenolol Hydrochloride
Oxymetholone
Penbutolol Sulfate
Pentooxyverine Citrate
Pindolol
Pipemidic Acid Trihydrate
Piperazine Adipate
Potassium Canrenoate
Prazepam
Prednisolone
Procaaine Hydrochloride
Procarbazine Hydrochloride
Progesterone
Protirelin
Scopolamine Butylbromide
Sodium Picosulfate
Sodium Polystyrene Sulfonate
Sodium Prasterone Sulfate
Sodium Valproate
Sulfadiazine Silver
Sulfaphenazole
Tegafur
Tetracycline Hydrochloride
Thioridazine Hydrochloride
Tiaramide Hydrochloride
Tinidazole
Tipepidine Hibenzate
Tocopherol
Tocopherol Acetate
Tocopherol Calcium Succinate
Todralazine Hydrochloride
Tolazamide
Tolnaftate
Triamcinolone
Triamcinolone Acetonide
Trimetazidine Hydrochloride
Trimethadione
Trimetoquinol Hydrochloride
Verapamil Hydrochloride
Vinblastine Sulfate
Vincristine Sulfate

24. The following monographs are revised in Identification owing to introduction of the Ultraviolet-visible Reference Spectra:

Part I
Acebutolol Hydrochloride
Acetohexamide
Alimemazine Tartrate
Allopurinol
<table>
<thead>
<tr>
<th>Generic Name</th>
<th>Common Name</th>
<th>Generic Name</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alprenolol Hydrochloride</td>
<td></td>
<td>Cocaine Hydrochloride</td>
<td></td>
</tr>
<tr>
<td>Alprostadil Alfadex</td>
<td></td>
<td>Codeine Phosphate</td>
<td></td>
</tr>
<tr>
<td>Ambenonium Chloride</td>
<td></td>
<td>Croconazole Hydrochloride</td>
<td></td>
</tr>
<tr>
<td>Amitriptyline Hydrochloride</td>
<td></td>
<td>Cyanocobalamin</td>
<td></td>
</tr>
<tr>
<td>Amoxapine</td>
<td></td>
<td>Cyproheptadine Hydrochloride</td>
<td></td>
</tr>
<tr>
<td>Arotinolol Hydrochloride</td>
<td></td>
<td>Dantrolene Sodium</td>
<td></td>
</tr>
<tr>
<td>Azathioprine</td>
<td></td>
<td>Dexamethasone</td>
<td></td>
</tr>
<tr>
<td>Baclofen</td>
<td></td>
<td>Dextromethorphan Hydrobromide</td>
<td></td>
</tr>
<tr>
<td>Bamethan Sulfate</td>
<td></td>
<td>Diazepam</td>
<td></td>
</tr>
<tr>
<td>Benserazide Hydrochloride</td>
<td></td>
<td>Dibucaaine Hydrochloride</td>
<td></td>
</tr>
<tr>
<td>Benzalkonium Chloride</td>
<td></td>
<td>Diclofenamide</td>
<td></td>
</tr>
<tr>
<td>Benzalkonium Chloride Concentrated Solution 50</td>
<td></td>
<td>Dihydrocodeine Phosphate</td>
<td></td>
</tr>
<tr>
<td>Benzethonium Chloride</td>
<td></td>
<td>Dihydroergotamine Mesilate</td>
<td></td>
</tr>
<tr>
<td>Berberine Chloride</td>
<td></td>
<td>Dilazep Hydrochloride</td>
<td></td>
</tr>
<tr>
<td>Berberine Tannate</td>
<td></td>
<td>Diltiazem Hydrochloride</td>
<td></td>
</tr>
<tr>
<td>Betahistine Mesilate</td>
<td></td>
<td>Dimenhydrinate Phosphate</td>
<td></td>
</tr>
<tr>
<td>Betamethasone</td>
<td></td>
<td>Dinorpholamine</td>
<td></td>
</tr>
<tr>
<td>Betamethasone Diproionate</td>
<td></td>
<td>Diprenorphine</td>
<td></td>
</tr>
<tr>
<td>Bifonazole</td>
<td></td>
<td>Diphenhydramine Hydrochloride</td>
<td></td>
</tr>
<tr>
<td>Biperiden Hydrochloride</td>
<td></td>
<td>Dipyridamole</td>
<td></td>
</tr>
<tr>
<td>Bisacodyl</td>
<td></td>
<td>Disopyramide</td>
<td></td>
</tr>
<tr>
<td>Bromazepam</td>
<td></td>
<td>Distigmine Bromide</td>
<td></td>
</tr>
<tr>
<td>Bromhexine Hydrochloride</td>
<td></td>
<td>Disulfiram</td>
<td></td>
</tr>
<tr>
<td>Bromocriptine Mesilate</td>
<td></td>
<td>Dopamine Hydrochloride</td>
<td></td>
</tr>
<tr>
<td>Bucumolol Hydrochloride</td>
<td></td>
<td>Doxapram Hydrochloride</td>
<td></td>
</tr>
<tr>
<td>Bufetolol Hydrochloride</td>
<td></td>
<td>Dropiperidol</td>
<td></td>
</tr>
<tr>
<td>Bufexamac</td>
<td></td>
<td>Hydrogesterone</td>
<td></td>
</tr>
<tr>
<td>Bumetanide</td>
<td></td>
<td>Edrophonium Chloride</td>
<td></td>
</tr>
<tr>
<td>Bupranolol Hydrochloride</td>
<td></td>
<td>Ecloxatol</td>
<td></td>
</tr>
<tr>
<td>Butropium Bromide</td>
<td></td>
<td>Enoxacin</td>
<td></td>
</tr>
<tr>
<td>Calcium Folate</td>
<td></td>
<td>Epirizole</td>
<td></td>
</tr>
<tr>
<td>Camostat Mesilate</td>
<td></td>
<td>Estazolam</td>
<td></td>
</tr>
<tr>
<td>Carbamazepine</td>
<td></td>
<td>Estriol</td>
<td></td>
</tr>
<tr>
<td>Carbazochrome Sodium Sulfonate</td>
<td></td>
<td>Etacrynic Acid</td>
<td></td>
</tr>
<tr>
<td>Carbidopa</td>
<td></td>
<td>Ethosuximide</td>
<td></td>
</tr>
<tr>
<td>Carbamofur</td>
<td></td>
<td>Ethylmorphine Hydrochloride</td>
<td></td>
</tr>
<tr>
<td>Carterol Hydrochloride</td>
<td></td>
<td>Etilefrine Hydrochloride</td>
<td></td>
</tr>
<tr>
<td>Cetrazate Hydrochloride</td>
<td></td>
<td>Famotidine</td>
<td></td>
</tr>
<tr>
<td>Chlordiazepoxide</td>
<td></td>
<td>Fenbufen</td>
<td></td>
</tr>
<tr>
<td>Chlorphenesin Carbamate</td>
<td></td>
<td>Fentanyl Citrate</td>
<td></td>
</tr>
<tr>
<td>Chlorpropamide</td>
<td></td>
<td>Flavoxate Hydrochloride</td>
<td></td>
</tr>
<tr>
<td>Clinofibrate</td>
<td></td>
<td>Floctafenine</td>
<td></td>
</tr>
<tr>
<td>Clozapamine Hydrochloride</td>
<td></td>
<td>Flopropione</td>
<td></td>
</tr>
<tr>
<td>Clofedanol Hydrochloride</td>
<td></td>
<td>Flucytosine</td>
<td></td>
</tr>
<tr>
<td>Clofibrate</td>
<td></td>
<td>Fludiazepam</td>
<td></td>
</tr>
<tr>
<td>Clomifene Citrate</td>
<td></td>
<td>Flunitrazepam</td>
<td></td>
</tr>
<tr>
<td>Clomipramine Hydrochloride</td>
<td></td>
<td>Flurocrine</td>
<td></td>
</tr>
<tr>
<td>Clonazepam</td>
<td></td>
<td>Fluorometholone</td>
<td></td>
</tr>
<tr>
<td>Clonidine Hydrochloride</td>
<td></td>
<td>Flurocortisone</td>
<td></td>
</tr>
<tr>
<td>Clopoperazine Hydrochloride</td>
<td></td>
<td>Fluphenazine Enanthate</td>
<td></td>
</tr>
<tr>
<td>Clotiazepam</td>
<td></td>
<td>Flurazepam</td>
<td></td>
</tr>
<tr>
<td>Clotrimazole</td>
<td></td>
<td>Flurazepam Hydrochloride</td>
<td></td>
</tr>
</tbody>
</table>
Flurbiprofen
Folic Acid
Formoterol Fumarate
Furosemide
Gabexate Mesilate
Glibenclamide
Guaifenesin
Guanabenz Acetate
Haloperidol
Haloxazolam
Homochlorcyclizine Hydrochloride
Hydralazine Hydrochloride
Hydrochlorothiazide
Hydrocotamine Hydrochloride
Hydroxocobalamin Acetate
Hydroxyzine Hydrochloride
Hydroxyzine Pamoate
Hymecromone
Ibuprofen
Idoxuridine
Ifenprodil Tartrate
Imipramine Hydrochloride
Indenolol Hydrochloride
Indigocarmine
Indometacin
Ipratropium Bromide
Isoniazid
l-Isoprenaline Hydrochloride
Ketamine Hydrochloride
Ketoprofen
Levallophan Tartrate
Levodopa
Levothyroxine Sodium
Lidocaine
Liothyronine Sodium
Lorazepam
Loxoprofen Sodium
Meclofenoxate Hydrochloride
Mecobalamin
Medazepam
Mefenamic Acid
Mefruside
Mepenzolate Bromide
Mepivacaine Hydrochloride
Mercaptopurine
Mestranol
Methotrexate
Methotrexate
Methyldopa
Methylergometrine Maleate
Methylprednisolone
Meticrane
Metildigoxin
Metoclopramide
Metronidazole
Metyrapone
Mexiteline Hydrochloride
Miconazole
Miconazole Nitrate
Morphine Hydrochloride
Nadolol
Naldixic Acid
Naproxen
Nicardipine Hydrochloride
Niceritrol
Nicomol
Nicotinamide
Nicotinic Acid
Nifedipine
Nitrazepam
Nortriptyline Hydrochloride
Noscapine
Orciprenaline Sulfate
Oxazolam
Oxethazaine
Oxybuprocaine Hydrochloride
Oxycodone Hydrochloride
Oxymetholone
Penbutolol Sulfate
Pentazocine
Perphenazine
Perphenazine Maleate
Pethidine Hydrochloride
Phenylbutazone
Phytonadione
Pindolol
Pipemidic Acid Trihydrate
Pirenoxine
Potassium Canrenoate
Potassium Guaiacolsulfonate
Pranoprofen
Prazepam
Probenecid
Procaine Hydrochloride
Procabazine Hydrochloride
Procarbrol Hydrochloride
Promethazine Hydrochloride
Propranolol Hydrochloride
Pyrantel Pamoate
Pyrazinamide
Pyridostigmine Bromide
Quinine Ethyl Carbonate
Quinine Sulfate
Reserpine
Riboflavin
Riboflavin Butyrate
Riboflavin  Sodium Phosphate
Salazosulfapyridine
Salbutamol Sulfate
Scopolamine Butylbromide
Simifibrate
Sodium Cromoglicate
Sodium Picosulfate
Spironolactone
Sulfapyrazone
Sulpiride
Sultiamine
Tegafur
Terbutaline Sulfate
Tetracaine Hydrochloride
Tetracycline Hydrochloride
Thiamine Hydrochloride
Timopidium Bromide
Tinidazole
Tipepine Hibenzate
Tocopherol Nicotinate
Todralazine Hydrochloride
Tofisopam
Tolazamide
Tolnaftate
Trapidil
Trepibutone
Triamcinolone Acetonide
Triamterene
Trichlormethiazide
Trimetazidine Hydrochloride
Trimetoxinol Hydrochloride
Tubocurarine Chloride
Tubulubutrol Hydrochloride
Ulinastatin
Verapamil Hydrochloride
Vinblastine Sulfate
Vincristine Sulfate
Warfarin Potassium

Part II
β-Galactosidase (Aspergillus)

25. The following monograph is revised in origin:
Prunella Spike

26. The following monographs have a change in their Japanese titles:

Part I
L-Arginine Hydrochloride
1% Codeine Phosphate Powder
10% Codeine Phosphate Powder
1% Dihydrocodeine Phosphate Powder
10% Dihydrocodeine Phosphate Powder
10% Ephedrine Hydrochloride Powder
10% dl-Methylphenidrine Hydrochloride Powder
10% Phenobarbital Powder
0.1% Reserpine Powder
Ursodeoxycholic Acid

27. In the equation in Monograph, the amount of substance to be titrated equivalent to each mL of the volumetric solution (VS) is expressed as a number of figures when the number starts with 1, 2 or 3, and is expressed as a number of four figures when the number starts with a figure of 4 or more. The number was obtained from the sum of the atomic masses.

Those who were engaged in the preparation of the JP Fourteenth Edition are as follows:

Norio Aim
Kazuyuki Akiyama
Kentarou Aoyagi
Nobuo Aoyagi
Toshinobu Aoyama**
Keiko Arimoto
Jiro Aritomi
Fumitoshi Chino
Kunio Danura
Sadayoshi Fujimori
Kunihiro Fujita
Masahiko Fujita
Hiroshi Fujiwara
Yuuki Goda
Kazuki Hane
Kouji Hasegawa
Ryuichi Hasegawa
Junko Hayakawa
Takao Hayakawa
Masahiro Hayashi
Toshiro Higashi
Kozo Hikida
Takao Hiraga
Fusayoshi Hirayama
Nobuyuki Hitomi
Yukio Horiuchi
Noboru Hoshi
Kunio Hoshino
Mitsunori Ichinose
Fumito Imai
Toshio Imanari
Akinobu Inoue
Noboru Inoue
Kenichi Inui
Jouichi Ishibashi
Mumio Ishibashi
Yukio Ishihara
Tatsuya Ishikawa
Tadaichi Ishizeki
Shigeru Itai
Takasho Itoh
Yuji Ito
Shozo Iwagami
Akemi Kii
Shozo Kaniwa
Nahoko Kaniwa
Motoko Kanke
Hideki Karaki
Yoshiaki Kato
Mitsunori Katoh
Noriko Katori
Toru Kawanishi
Toshiaki Kawanishi
Hironoshir Kawasaki
Toshisuke Kawasaki
Yoshiaki Kawashima
Keiji Kijima
Shinichi Kimata
Toshio Kinoshita
Takao Kiyohara
Masayoshi Kohase
Norio Kojima
Shigeo Kojima
Hiroyasu Kokubo
Seizo Kondo
Toshimasa Koshimizu
Hideki Kumakura
Takao Kusumoto
Mitsuo Kurashige
Takeshi Kurata
Yuji Kurokawa
Fumiyo Kusu
Masako Maeda
Tamio Maitani
Hirokazu Makita
Toshiro Masada
Toshihiko Matsubara
Yoshihisa Matsuda
<table>
<thead>
<tr>
<th>Name</th>
<th>Name</th>
<th>Name</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Norio Matsuki</td>
<td>Koji Nishijima</td>
<td>Kesamitsu Shimizu</td>
<td>Tatsuru Tomizawa</td>
</tr>
<tr>
<td>Shigeru Matsuki</td>
<td>Motohiro Nishijima</td>
<td>Takao Shimizu</td>
<td>Fumiya Tomonaga</td>
</tr>
<tr>
<td>Hayashi Matsukura</td>
<td>Tatsumi Nishiyama</td>
<td>Kyoko Shimura</td>
<td>Kohdo Tonooka</td>
</tr>
<tr>
<td>Masaaki Matsuo</td>
<td>Masahiro Nobuhara</td>
<td>Fumitoshi Shincho</td>
<td>Satoshi Toyoshima</td>
</tr>
<tr>
<td>Tadanori Mayumi</td>
<td>Yoshikiko Nogata</td>
<td>Kunio Shirai</td>
<td>Hideya Tsuge</td>
</tr>
<tr>
<td>Shigeru Minami</td>
<td>Yozo Oda</td>
<td>Kouichi Shudo</td>
<td>Nobuchika Tsumagari</td>
</tr>
<tr>
<td>Shusuke Minoura</td>
<td>Hiroyasu Ogata</td>
<td>Shoko Sueyoshi</td>
<td>Nobutaka Tsunakawa</td>
</tr>
<tr>
<td>Katsutoshi Misé</td>
<td>Yoshiyuki Ogawa</td>
<td>Masayasu Sugihara**</td>
<td>Eriko Uchida</td>
</tr>
<tr>
<td>Akira Miwa</td>
<td>Hisashi Ogino</td>
<td>Keiichi Sugimoto</td>
<td>Mitsuru Uchiyama*</td>
</tr>
<tr>
<td>Naoki Miyata</td>
<td>Masaru Ohno</td>
<td>Hisakazu Sunada</td>
<td>Yoshimasa Uehara</td>
</tr>
<tr>
<td>Michinao Mizugaki</td>
<td>Yasuo Ohno</td>
<td>Hideyo Suzuki</td>
<td>Morimasa Yagisawa</td>
</tr>
<tr>
<td>Mutsuo Mizuno</td>
<td>Masakazu Ootani</td>
<td>Senji Suzuki</td>
<td>Takehiko Yajima</td>
</tr>
<tr>
<td>Miwako Mori</td>
<td>Minoru Okada</td>
<td>Tokuji Suzuki</td>
<td>Teruhide Yamaguchi</td>
</tr>
<tr>
<td>Kaoru Morikawa</td>
<td>Satoshi Okada</td>
<td>Yukio Tabuchi</td>
<td>Keiichi Yamamoto</td>
</tr>
<tr>
<td>Kazushige Morimoto</td>
<td>Tsuneo Okubo</td>
<td>Mitsuharu Takeda</td>
<td>Keiichi Yamamoto**</td>
</tr>
<tr>
<td>Yasunori Morimoto</td>
<td>Hideki Okuda</td>
<td>Yasushi Takeda**</td>
<td>Keiji Yamamoto</td>
</tr>
<tr>
<td>Osamu Morita</td>
<td>Toshiaki Omoto</td>
<td>Shoji Takitani</td>
<td>Koichi Yamamoto</td>
</tr>
<tr>
<td>Yasuo Morisugu</td>
<td>Tetsuya Otsubo</td>
<td>Akira Tanaka</td>
<td>Kenichi Yamazaki</td>
</tr>
<tr>
<td>Shigeru Muraki</td>
<td>Masami Otsuka</td>
<td>Toshihiro Tanaka</td>
<td>Takeshi Yamazaki</td>
</tr>
<tr>
<td>Hiroaki Muto</td>
<td>Tadashi Ouchi</td>
<td>Kenichi Tanamoto</td>
<td>Tsutomu Yasuda</td>
</tr>
<tr>
<td>Yoshizumi Nagai</td>
<td>Kazuhiko Sagara</td>
<td>Tsuyoshi Tanimoto</td>
<td>Kaisuke Yoneda</td>
</tr>
<tr>
<td>Masahiro Nakadate</td>
<td>Hiroshi Saito</td>
<td>Susumu Terabayashi</td>
<td>Yoshiro Yonemura</td>
</tr>
<tr>
<td>Terumichi Nakagawa</td>
<td>Kiyoshi Sakai</td>
<td>Tadao Terao*</td>
<td>Hitoo Yoshida</td>
</tr>
<tr>
<td>Tomohide Nakagawa</td>
<td>Tsuguo Sasaki</td>
<td>Hiroshi Terashima</td>
<td>Kunitoshi Yoshihira</td>
</tr>
<tr>
<td>Eni Nakajima</td>
<td>Motoyoshi Satake</td>
<td>Kunikazu Teshima</td>
<td>Kazumasa Yoshikawa</td>
</tr>
<tr>
<td>Akitada Nakamura</td>
<td>Fujio Sekikawa</td>
<td>Tohru Tokunaga</td>
<td>Takashi Yoshino</td>
</tr>
<tr>
<td>Hiroshi Nakamura</td>
<td>Setsuko Sekita</td>
<td>Kiyoshi Tomioka</td>
<td>Sumie Yoshikawa</td>
</tr>
<tr>
<td>Mikio Nakamura</td>
<td>Masahiko Shibakawa</td>
<td>Motowo Tomita</td>
<td>Minoru Wada</td>
</tr>
<tr>
<td>Akio Nakanishi</td>
<td>Keisuke Shigezane</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tatsuya Nakano</td>
<td>Yasuo Shimada</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hiroyuki Nakazawa</td>
<td>Naoki Shimizu</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Chairman, Committee on JP
**Acting Chairman, Committee on JP