7) 循環器 WG（興梠委員）

循環器 WG では、わが国で作成したαドラフトの原案をもとに、国際 WG でαドラフトの作成中である。この作業は少しずつ進んでいるが、iCAT への入力や定義の作成などにはまだ取りかかっていないのが現状である。

【質疑】

- αドラフトはいつごろできそうか（菅野議長）。
- ようやく作業が少しずつ進んでおり、2012 年 3 月 1 日に電話会議が開催される予定なので、そこで進捗などについて議論される予定である。
- わが国の循環器学会の支援体制はどうなっているのか（菅野議長）。
- 循環器の各学会はこのプロジェクトについて認識をしており、必要に応じて予算計上もしていただくことになっている。

（2）HIM-TAG からの報告（中谷委員）

HIM-TAG では定期的に電話会議を行っている。電話会議で議論された内容としては、βフェーズに向けて SNOMED-CT との連携に向けた common anatomy グループを立ち上げた。また、わが国の医療情報グループではジェノミックスのサブ構造をデザインして完成させ、XML 化して提案を行っているところである。

【質疑】

- common anatomy グループについてメンバー構成など教えていただきたい（瀧村室長）。
- common anatomy グループについては、一度立ち上げのアナウンスがあって以来情報がないため、メンバーなどの詳細は不明だが、anatomy に関する簡単で合理的な言葉が入ったセット、いわゆるバリューセットを模索していると思われる。このグループは大きく二つに分けられ、SNOMED-CT との連携の交渉をするグループと、anatomy だけを追求するグループがあると聞いている。
- 定義の入力は、いつまでに完了すればよいと考えればよいのか（針谷委員）。
- 2012 年中にファーストレイヤーかセカンドレイヤーまでの入力が必要かと思われる。しかしながら全体の予定が 1 年遅れ、ようやくβフェーズに 5 月から移行する予定なので、焦る必要はないと思われる（菅野議長）。
- 5 月までにαドラフトの iCAT へのエントリーを極力完璧にしておくということか（田嶋委員）。
- iCAT へのαドラフトの入力ができていないと作業が混乱してしまうので、コンセンサスになっている部分は登録しておいていただけるとありがたい。循環器 WG、呼吸器 WG は未完成の領域が多いと思うが、呼吸器 WG に関しては日本のアイデアにコ

メントを受けるという形で運営するのが実際的だと思う。

- 米国では ICD-11 を利用する予定はしばらくないと聞いたが本当か（近藤委員）
- ICD-10 の導入は 2013 年の予定だが、その移行に 6 兆円前後の予算がかかるため議会で止まっているとの情報である（瀧村室長）。

以上

平成 23 年度　内科 TAG 電話会議の概要

Date: Wednesday, September 7, 2011 (8 a.m. GMT)

Participants:

IM TAG:	Kentaro Sugano
Gastroenterology WG:	Peter Malfertheiner
Hepatology and Pancreatobiliary WG:	N/A
Nephrology WG:	Yasuhiko Iino
Cardiovascular WG:	N/A
Respiratory WG:	N/A
Hematology WG:	N/A
Endocrinology WG:	N/A
Rheumatology WG:	Masayoshi Harigai
WHO:	Robert Jakob, Sara Cottler, Julie Rust, Megan Cumerlato, Kayo Takimura, Toshio Ogawa

Minutes of Meeting

1. Condolences on Dr. Emmet Keeffe

Dr. Sugano welcomed all participants to the teleconference. At the start of the meeting, the IM-TAG observed a moment of silence for the late Dr. Emmet Keeffe, the co-chair of the Hepatology and Pancreatobiliary WG, WHO passed away last August. To maintain continuity in the Hepatology and Pancreatobiliary WG's work, Prof. Geoff Farrel, a member of the WG, was recommended to succeed Dr. Keeffe as co-chair, and will be contacted through the Ministry of Health, Labour and Welfare of Japan.

2. Proposal of the Structure

2.1 Updates from WGs

(1) Cardiovascular WG

Congenital/PediatriCATeleconference was organized with Rare Diseases TAG on July 20, yielding a consensus that Cardiovascular WG would lead the work in the overlap area, with input coming from the Rare Diseases TAG. Dr. Franklin will prepare a draft merging the proposals from the two groups, which should be finalized towards the end of September 2011. Work has now started on the definition layer. Adult: A teleconference was organized on July 14 to allocate areas of responsibility and set down a work plan. A future teleconference is planned (September/October) to discuss further work in the respective areas of responsibility.

(2) Gastroenterology WG

Most of the structural changes are now in the iCAT. The WG reached a consensus with the Rare Diseases TAG on the work in the overlap areas, and is also in communication with the Neoplasm TAG and the Pediatrics TAG. Next steps include drafting and review of the definition layer proposals. A question was raised by Dr. Malfertheiner regarding overlap areas on infectious diseases and neoplasms of the digestive system. It was noted:

- Infectious diseases: if the infection is relevant to certain specialties, then that specialty can take responsibility. The Infectious Disease TAG is in the process of being established but not yet functional.
- Neoplasms: the new co-chairs of the Neoplasm TAG were meeting on September 7 and will be in contact with all the TAGs in due course to address the issue of overlaps.

It was also suggested that WHO provide guidance on the coordination of infectious diseases and conditions, without which there would be too many pre-coordinated categories across the ICD classification. Dr. Jakob indicated that WHO would look into this issue.

(3) Hepatobiliary WG

The Hepatobiliary WG is making good progress on the structural change proposals. A consensus was reached on the work on overlaps with rare diseases. Next step will be the definition layer.

(4) Rheumatology WG

Final queries on structural changes are under review by Dr. Kay. Most structural changes have been entered into the iCAT, including input from the autoinflammatory disease group. The Chapel Hill classification on vasculitis will be considered for inclusion in the WG's proposal. A teleconference was organized in June with Musculoskeletal TAG to clarify areas of overlap. The WG also prepared two updates for consideration by the ICD-10 Update and Revision Committee (psoriatic arthritis and spondylitis).

With regard to a proposal for a multisystem disease chapter, an independent chapter was unlikely due to the difficulty in the development of a sufficiently cohesive chapter and its usefulness only with some diseases but not with others.

(5) Endocrinology WG

As Japanese societies had no comments on the draft proposal on structural changes, the original proposals will be input into the iCAT in the next few weeks. Dr. Tajima expects to present work on the definition layer soon. The WG is working with the Nutrition WG and Rare Diseases TAG in the areas of overlap (primarily obesity and congenital metabolicdisorders, respectively).

(6) Hematology WG

Information is not available on the progress by Hematology WG on structural change proposals. The WG had a meeting with oncology groups in London in June towards harmonization of ICD and ICD-O. It reached a consensus with the Rare Diseases TAG on areas of overlap, facilitated by some membership overlap between the two groups. To address the issue of overlap, invitation of relevant oncology groups to WG's workshops or a meeting with IARC was also suggested.

(7) Nephrology WG

The Nephrology WG is making good progress, with all structural change proposals entered into the iCAT and the neoplasm section updated. Work is still ongoing with respect to overlaps (cystic kidney diseases) with the Rare Diseases TAG. Next steps also include entry of the definitions into the iCAT content model.

(8) Respiratory WG

The Respiratory WG had a teleconference on June 29 to discuss areas of responsibility. However, no further information is available on the steps forward, including finalization and input into the iCAT of the structural change proposals. The issue of overlaps, namely, with Pediatrics TAG and Rare Diseases TAG, both of which have already contacted the WG, also needs to be addressed.

3. Update from WHO

The final deadline for entry of the contents into the iCAT (including coding structures and definitions) is by December 2011. The ICD-11 alpha browser will be open for public comment on September 12, 2011, with a daily updated color-coding system of red, yellow and blue. The ICD revision timelines remain unchanged, with the launch of ICD-11 planned in 2015.

4. Face-to-Face Meeting of IM-TAG in Tokyo, February 8 and 9, 2012

It was announced that a face-to-face meeting of the IM-TAG would be held on February 8 and 9, 2012, in the United Nations University in Tokyo. Invitation letters will be sent out shortly.

腫瘍 TAG 調査票に対するわが国からの意見（2011 年 10 月、西本委員とりまとめ）

Revision of ICD-10 towards ICD-11
Call for proposals

The WHO has undertaken the process for producing the 11th revision of the International Classification of Diseases (ICD). The ICD-11 revision will proceed in stages, the first consists in a systematic review of scientific, clinical and public health evidence relevant to classification that will create a draft ICD-11 for field-testing.

The Topic Advisory Group (TAG) for chapter NEOPLASMS has been set up. The TAG wishes to offer users of ICD a chance to submit proposals of modifications to ICD10 to be implemented in ICD11.

If you wish to propose specific changes to ICD10 to be considered by the TAG please fill in the questionnaire (3 pages) by clicking <here>.

This call will be open until 30th November 2011

Revision of ICD-10 towards ICD-11

Contributor identification

Name* HIROSHI Surname* NISHIMOTO

Institution* National Cancer Center, JAPAN

This questionnaire has two sections. In the first one the TAG would like to have your opinion on modifications to ICD10 that are currently examined by the group. The second section is devoted to your proposals.

SECTION 1

1. New category for gastro-esophageal junction

1.1 introduce a 3-digit code for gastro-oesophageal junction/cardia (e.g. C27) and delete C16.0

Justification: to improve use of specific sub-site (currently high frequency of non-specified sub-site)

1.2 alternative: maintain C16.0=cardia and introduce new category C15.6 for gastro-oesophageal junction

Justification: need to monitor trends of morbidity due to obesity *[pp comment: , this is my guess, I don't know why TAG gastroenterology requested this change]*

Your opinion, usefulness, feasibility in routine data collection:

It is different about morphologic types in esophageal cancer between Japan and US (see attached comments followed by this answer).
I don't support 1.2, because C15.6 means that the gastro-esophageal junction is classified in the sub-site of esophagus. Most of medical doctors recognise the sub-site seems to be in stomach in Japan.
We should consider the differences among countries or rations. If the code of this sub-site should be change from C16.0 separately, I support 1.1, because we can count this sub-site both in esophagus and in stomach.

2. Abolish ICD10 sub-site categories (4th digits) of breast (C50), oesophagus (C15) and non-melanoma skin (C44); re-use them to code main morphology types for the site

Justification: main histology types of these sites related to aetiology, would be interesting to monitor morbidity and mortality by histology
Your opinion: usefulness and feasibility in routine data collection:

There will be different patterns of metastasis depend on tumor sub-sites, so ICD-10 sub-site categories are reasonable. But histology types also are important. But I think the unification of the code structure and its axis for all sites should be needed. I propose that the axis of classification should be on the topological expression, or sub-sites in principle. And the additional codes for histologic types should be added in 2 or 3 digits followed the sub-sites codes.

3. Introduce specific category for neoplasms in transplanted organs

Justification: monitor incidence of malignancies in transplanted organs
Your opinion: usefulness and feasibility in routine data collection:

Data collection for these neoplasms is important, and difficult to categorize with non transplanted organ tumors. This category will be useful.

4. Haematopoietic and lymphoid tissues: revise all codes to align ICD with ICD-O 3rd revision and WHO Classification (Blue Books)

Justification: historical ICD classification now obsolete and non-informative. Radical change may entail non-comparability with historical data.
Your opinion: usefulness and feasibility in routine data collection:

Lymphoma and hematopoietic tumor is different from other solid tumors. Because most of the hematologists make diagnoses based on WHO classification (Blue Books), introducing this nomenclature system would be most useful and seamless. But we should cooperate with ICD-O, that it is fitted for the Blue Book in 2008 incompletely.

SECTION 2 Your proposals

1. Are there new categories to be introduced in ICD-11?

[the user may fill in this section several times until the 'No' box is checked]

Yes |X| No |_| goto end.

1.1 New category definition:

Extrahepatic bile duct and Gall bladder

1.2 Give brief justification for change:

C23.0 Fundus of Gall bladder C23.1 Body of Gall bladder C23.2 Cervix of Gall Bladder C23.3 Cysticduct C23.9 Gall bladder, NOS C24.0 Extrabile duct (Obsolute) C24.1 Ampulla of Vater C24.2 Perihilar Extrahepatic bile duct include Klastkin tumor C24.3 Distal Extrahepatic bile duct C24.8 Overlapping lesion of biliary tract C24.9 Biliary tracy,unspecified

1.3 Main field of application of new category (pull down menu): b

a. Scientific Evidence: to reflect the advances in medicine and all health sciences

b. Clinical Utility and health system utility: to improve easy to use and make ICD better integrated into routine practice in different settings

c. Public Health Usefulness: to assist in public health policy resource allocation and monitoring outcomes (mortality, morbidity and other population health parameters)

d. To bring ICD in line with derived classifications as ICD-O and the IARC Blue Book series

e. Other Specify |_____|

1.4 Provide references of scientific articles that address issues related to the proposed change:

The TNM classification, 7th edition, UICC

My Comment for the code of E-G junction

We have the data from cancer registries in Japan.

In hospital-based cancer registries, we can count the malignant esophageal neoplasms, 13,685 cases and the malignant neoplasms in the esophagogastoric junction (E-G junction), 5,329 cases.

In these 19,014 cases, Adenocarcinoma is counted 5,460 cases, 29% of them, including 4966 esophageal and E-G junction tumors.

Adenocarcinoma of esophagus and E-G junction is increasing, but not major histologic type.

Under this background, there is the discrepancy of definition of this sub-site between TNM classification and Japanese domestic rules.

In Japanese domestic rules for esophageal cancer by Japanese Medical Society of Esophagus and also stomach cancer by Japan Medical Society of Stomach Cancer, the E-G junction tumor is defined the tumor that its epicenter is between upper 2cm and lower 2cm from E-G junction.

So I am afraid that most of Japanese experts could not accept the change of definition of E-G junction.

If we adopt the proposal of 1.1, we could evaluate Japanese definition of E-G junction. If the proposal of 1.2 is adopted, C15.6 (include esophagus) would rarely selected in Japan and code C16.0 would increase, and we cannot distinguish from the cancer of cardia, not invade to esophagus, and the cancer of E-G junction. So we cannot evaluate the situation of this sub-site, either.

Development of ICD-11: Neoplastic diseases

Suggestions from the viewpoint of clinical hematology and medical oncology

- DRAFT - 2 March 2012, S.W. Krause (corr.), H. Ostermann, M. Bauer, C. Haag

1 Summary

The following deviations from the current principles of the ICD-10 are suggested

- possibility to encode histo-/cytopathology *and* site of disease in every instance
- distinction of benign and malignant neoplasms and grading within disease groups, i.e. no a priory separation of benign, malignant and in situ neoplasms into different chapters of the ICD-11
- clear hierarchy of either histo-/cytopathology or site of disease as primary classifier according disease groups (no exceptions for single diseases)
- extended coding of disease spread

2 Introduction

Two important principles are predominant within the classification of neoplastic diseases:

- Primary site of the disease
- Histopathological (and/or cytopathological) classification and grading

In the ICD-10, neoplastic diseases are grouped into malignant neoplasia, carcinoma in situ, benign neoplasia and neoplasia of uncertain or unknown behaviour in the first place. Within malignant neoplasias, classification by disease site is dominating the classification of solid tumors with some exceptions (e.g. some sarcomas, melanoma). For many of these disease sites, an additional encoding of histopathology/cytopathology is not possible. Histopathology/cytopathology is dominating the classification of neoplasms of the hematopoetic and lymphatic system, but encoding of the disease sites is mostly not possible.

Two further principles are important for the definition of the specific disease of an individual patient:

- Disease spread and/or stage
- Molecular subclassification of histopathological entities

Within the ICD-10 the spread of solid tumors can sometimes be encoded by differential codes for the primary tumor and can always be coded by secondary codes for tumor

metastases. For leukemias and lymphomas, spread and/or stage cannot be sufficiently encoded. Encoding of grading and/or molecular subclassification is only rarely possible. For a sufficient definition of malignant disease states in the ICD-11, all of the four principles described above should be used. In theory it would be possible to define a common hierarchy of classifiers for all neoplasms, such as: primary classifier: disease site - secondary classifier: histopathology/cytology and grading - tertiary classifier: molecular classification - additional classifier (separate code): spread, stage, metastases However, such a unified scheme would contradict medical traditions (also mirrored in the ICD-10) according to which systemic diseases like leukemias and lymphomas and some other neoplasms are primarily classified according to histopathology wheras most other neoplasms are primarily classified according to the primary site of the disease. Therfore we suggest different hierarchies of classifiers for different groups of diseases as described below.

3 Hierarchy of Classifiers for Different Disease Groups

3.1 No a priori separation of benign and malignant diseases

Diseases should be grouped according to disease site (most solid tumours) or histopathology/cytopathology (leukemias, lymphomas and some others) as described below. Since the separation of malignant, benign or unclear behaviour may be difficult in some cases and definitions change over time, this differentiation should be included in the histopatholgical/cytopathological classifier, i.e. there should be no extra chapters for benign diseases and in situ cancers like in the ICD-10.

3.2 Definition of the primary classifier

For every neoplastic disease it has to be decided, if it will be primarily classified according to its site of origin or according to histopathology/cytology. In contrast to the ICD-10 with different rules for different neoplasms plus exceptions plus exceptions from the exceptions, we suggest a clear hierachical decision, leading to an important rule:

A neoplasm that can be classified according to a histo- or cytopathological definition in one of the following three disease groups will be primarily classified using histopathology/cytopathology. Classification according to site will then be used as secondary classifier, if appropriate.

The following list is largely following the ICD-10. However, due to simplicity and also clinical reasoning, disease groups to be classified according to histopathology are somewhat more extended than in the ICD-10, whereas for other groups, we suggest to

abandon histopathology as primary classifier.

Neoplasms with histopathology as primary classifier

- Neoplasms of the hematopoetic and lymphoid system (classification following the blue book)
- Mesothelioma
- Sarcomas and other neoplasms of connectve tissues (classification following the blue book)

Accordingly, the remaining neoplasms are primarily classified according to the site of disease origin:

Neoplasms with disease site as primary classifier

- Malignant neoplasms of lip, oral cavity and pharynx
- Malignant neoplasms of digestive organs
- Malignant neoplasms of respiratory and intrathoracic organs
- Malignant neoplasms of skin (including malignant melanoma)
- Malignant neoplasm of breast
- Malignant neoplasms of female genital organs
- Malignant neoplasms of male genital organs
- Malignant neoplasms of urinary tract
- Malignant neoplasms of eye, brain and other parts of central nervous system
- Malignant neoplasms of thyroid and other endocrine glands
- Cancer of unknown primary

3.3 Definition of subsequent classifiers according to disease group

In the following lists we suggest examples of primary and secondary classifiers for different groups of diseases. The following considerations were made for these suggestions:

- all important classifiers as mentioned in the introduction should be used to describe a disease or the possibility of future use should be enabled
- secondary classifiers should be relevant and widely available
- specialized molecular classifications should preferably used as tertiary and not secondary classifiers
- a maximum of three classifiers can be put into one single new code
- for additional description of the disease state, supplementary codes (e.g. for spread of disease, metastases or stage) are suggested
- for subclassifications, traditions of the ICD-10 will be followed as long as still suitable

3.4 Hierarchy of classifiers for neoplasms primarily grouped by histopathology

- examples -

Primary code				possible suppl. codes
Disease (group)	**ext. primary classifier**	**secondary classifier**	**tertiary classifier**	**(examples)**
Myeloproliferative neoplasms	subgroup (CML, PV, ET, PMF...)	-	mol. marker	blast crisis, extramedullary disease
Hodgkins lymphoma	classical HL, lymphocyte predominant	subgroup of classical HL	-	Ann Arbor class.
AML	subgroups according to blue book	-	mol. marker	extramedullary disease
B-NHL	disease according to blue book	may be used for disease subgroup	mol. marker	Ann Arbor class., Binet class. (CLL), CRAB criteria (myeloma), extranodal disease, ...
Soft tissue tumours	subgroup (adipocytic, fibroblastic ...) incl. grading	primary site	mol. marker	TNM (if malignant)
Bone tumours	subgroup (cartilage, osteogenic, Ewing/PNET ...) incl. grading	primary site	mol. marker	TNM (if malignant)

3.5 Hierarchy of classifiers for neoplasms primarily grouped by disease site

- examples -

Primary code				possible suppl. codes
Disease (group)	**ext. primary classifier**	**secondary classifier**	**tertiary classifier**	**(examples)**
Lung	primary site	histopathology (benign, Adeno-Ca, squamous Ca, SCLC, ... not: lymphoma, sarcoma) incl. grading	mol. markers	TNM (if malignant)
Esophagus	primary site	histopathology (adeno vs. squamous..., not: sarcoma, GIST, lymphoma) incl. grading	mol. markers	TNM (if malignant)
Skin	primary site	histopathology (melanoma, scc, basalioma...) incl. grading	mol. markers	TNM (if malignant)
Mediastium	primary site	histopathology (thymoma, germ cell tumors, neuroendocrine, ... not: lymphoma or sarcoma) incl. grading	mol. markers	TNM (if malignant)
Breast	primary site	histopathology (DCIS, ductal invasive Ca., lobular, basal cell, phylloides, ... not: sarcoma, lymphoma) incl. grading	mol. markers	TNM (if malignant)

3.6 List of supplemental codes

- to be extended -

A number of supplemental codes to describe the state of a neoplastic disease in a given patient is already available in the ICD-10. Most prominent are the codes for encoding of metastatic disease. This list should be extended, especially for the description of primarily systemic diseases like malignant lymphomas.

disease state	**ICD-10**	**relevant for**
Secondary malignant neoplasm of lymph nodes	C77	solid tumors (malignant)
Secondary malignant neoplasm of organs and other spedified sites	C78 - C79	solid tumors, also to be used for infiltration by malignant lymphomas or leukemias if appropriate
Stage according to Ann Arbor classifiCATion	-	nodal malignant lymphomas
CRAB criteria	-	multiple myeloma
Binet stage	-	CLL
Tumour spread according to TNM (incl. L, V)	-	malignant solid tumours (only valid for primary diagnosis)
limited/extensive disease	-	small cell lung cancer (only valid for primary diagnosis)
disease state (primary, relapse, refractory) *facultative suggestion*		

学会名	名前	コメント(抜粋)
日本呼吸器学会	高橋　和久	資料2(ドイツからの提案)を拝見しました。 基本的にはこのコンセプトに賛成です。 特に呼吸器腫瘍については原発巣でまずは分類するこの方法でよろしいと思います。 (肺原発のリンパ腫、肉腫などは除く)
日本皮膚科学会	斎田　俊明	今回の案では、malignant neoplasms of skin (including malignant melanoma)となっています。 melanomaとそれ以外の皮膚がんは、まったく性状を異にする腫瘍ですので、欧米でもmelanomaとnon-melanoma skin cancersに大別するのが通例です。そういう観点は今回、無視するということでしょうか。 また、melanomaは以前の会議の際に西本先生からもお話があったように、ほぼ確立された病型分類があり、ICD-11ではそれが採用されるとうかがっておりました。この病型がこの案ではどこで明記されるのかよく分かりません。secondary classifierはmelanomaかSCCかBCCか、などを分類する段階のようですので、病型分類はtertiary classifierで適用されるのでしょうか。病型分類はmolecular markerと関連する面もありますが、本質的には病理組織学的分類です。また、melanomaは粘膜、結膜あるいは脈絡膜にも生じますが、これらは別途、該当する解剖学的部位の腫瘍として処理されるのでしょうか。 また、別の点ですが、皮膚のリンフォーマ(たとえばmycosis fungoidesなど)はneoplasms of the hematopoietic and lymphoid systemの中で扱われるのでしょうか。 以上、原文をざっと読んだだけですので、私の誤解があるかもしれませんが、確認していただければと考えます。
日本病理学会	根本　則道	日本病理学会の剖検情報委員会が中心となって毎年 刊行される日本病理剖検輯報という、わが国の剖検データ ベースの冊子体があります。現在53輯を数え、100万件以上の 剖検データがまとめられています。 第17輯(1974年)からは、電子化されたデータベースとなって いますが、この疾患コード体系はICD9→ICD10およびICD－O を基本にしています。 したがって、ICD11においても、従来の疾患コード体系から大きく ズレが生じない点と、従来のコードの置き換え可能な点をお願いします。

第二回国内内科 TAG 検討会資料

Report on Proposal of the ICD structure - GI (Gastroenterology)WG

Soichiro Miura on behalf of Dr. Peter Malfertheiner

WG members

Chair	Peter Malfertheiner	Otto v. Guericke University of Magdeburg, Magdeburg, Germany
Co-chair	Soichiro Miura	National Defense Medical College, Saitama, Japan
Managing editor	Junichi Akiyama	National Center for Global Health and Medicine, Tokyo, Japan
GI Work Group members	Serhat Bor	Ege University, Izmir, Turkey
	Michael Camilleri	Mayo Clinic, Minnesota, USA
	Francis KL Chan	Chinese University of Hong Kong, Hong Kong
	Jaime N Eisig	University of Sao Paulo,