7th Meeting of Asia and Oceania Thyroid Association December 4, 2003 in Singapore

History of Asia and Oceania Thyroid Association

#### Shigebnobu Nagataki

Former President, Asia and Oceania Thyroid Association Emeritus Professor, Nagasaki University Director, Japan Radioisotope Association





#### History has a lot to teach us about the future The Analects of Confucius

Singapore	lan B. Hales
Tokyo, Japan	Nobuo Ui
Bangkok, Thailand	S. Tandhanand
Seoul, Korea	Monho Lee
Leura, Australia	Cres Eastman
OsaKa, Japan	T. Onaya
Singapore	D. Khoo
	Singapore Tokyo, Japan Bangkok, Thailand Seoul, Korea Leura, Australia Osaka, Japan Singapore



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		The 1 <sup>th</sup> AOTA	A Mee	eting 1978	
		Singapore, Jan	uary 2	8-31, 1978	
Scientific S	essions	and Number of	<sup>r</sup> Pape	rs	
Endemicity Pathogenes Goitre Con Thyroid fur Measureme Specialised Total 52	of Goi is of Er trol Pronction t ents of t technic	tres idemic goitres ogramme esting thyroid hormon ques (LATS)	es and	10 9 6 8 1 TSH 11 8	
Numbers of	fcount	ries:			
Japan USA Burma Pakistan Sri Lanka	20 3 1 1 1	Australia Brazil Canada Philippines UK	9 2 1 1 1	India Thailand Indonesia Singapore	4 2 1 1
Total 48					











At the Beginning We were active and happy in our laboratories and in AOTA

Application of the most advanced knowledge and techniques in thyroid fields

Public attention to thyroid disease

Investigation of thyroid brought us enough funding and was attractive to young people

### **Slogan of AOTA**

Catch up with and get ahead of other sister societies since AOTA is the youngest society

To advance the knowledge in basic and clinical thyroidology

To promote interest in the practice of medicine related to the thyroid and to promote research into allied subjects To facilitate collaboration and exchange of information among individuals within the region.

> To promote the scientific presentation from and within AOTA

Establishment of strong program organizing committee

### Application of the most advanced knowledge and techniques in thyroid fields

- \*Use of radioisotope in clinical medicine and studies on hormone synthesis and release
- \*Concept of autoimmune diseases established in thyroid diseases
- \*New techniques of measurements of biomaterials from biochemical assay to immunoassay

# Clinical uses of radioisotope



Establishment of The Society of Nuclear Medicine in Asia and Oceania region with many friends in

Thyroidology



attempts to approximate relative magnitudes.) In the upper left the inorganic iodide is absorbed from the gastrointestinal tract and completely transferred to the plasma and extracellular iodide pool. The iodide is carried to the thyroid gland (the large square), where the thyroid iodide trap then concentrates it. A smaller arrow indicates that some iodide returns to the

### Studies on thyroid hormone synthesis and release using radioactive iodine







Etiology. At present the cause of thyrotoxicosis is poorly understood. It has been assumed that in patients with exophthalmic goiter<sup>(Graves's)</sup> disease) with diffuse enlargement of the thyroid gland, excessive thyrotrophic hormone might be responsible for the initiation of the syndrome. The not uncommon occurrence of hyperthyroidism associated with acromegaly provides further support for this theory. Convincing proof of this is lacking in most patients; however, in a large number of cases there is a clue in the correlation between episodes of <u>psychic trauma</u>, infections, injury, or <u>other types of stress</u> at the onset of thyrotoxicosis.

# 1956

Adams DD and Purves HD Abnormal responses in the assay of thyrotropin Proc Univ Otago Med School 34: 11, 1956

Roitt IM, Doniach D, Campbell PN and Hudson RV Auto-antibodies in Hashimoto's disease (lymphadenoid goiter) The Lancet 2: 820, 1956





## **Public attention to thyroid diseases**

Endemic goiter

one of the oldest disease in the world and subjects suffering from endemic goiter is the largest in the world

Establishment of the concept of Iodine Deficient Disorders (IDD) and establishment of International Coordination Committee of Iodine Deficient Disorders (ICCIDD)





CURRE IN THYRO	ENT PROBLEMS	The 2th AOTA Meeting 1982 Tokyo, August 19-22,198				
		President:	N. Ui			
NOBUO SH	UI, KANJI TORIZUKA, IGENOBU NAGATAKI, KIYOSHI MIYAI	Vice Presidents:	V. Kumar T.S. Reeve P.P.B. Yeo			
		Secretary:	S. Nagataki			
		LOC: Japan				
		Chairman:	N. Ui			
		Secretary General:	S. Nagataki			
		POC:				
		Chairman:	K.Torizuka			
	EXCERPTA MEDICA	Members:	R. Hoschl			
			S. Nagataki			
	International		J.K. Stockigt			
	Congress Series 605		P.P.B. Yeo			



	The 4th AOTA Meeting 198 Seoul, April 19-21,1989				
THYROIDOLOGY 1989	President: Vice Presidents:	S. Nagataki JR. Stockigt S. Tandhanand			
Editors : M. Lee C.S. Koh C. I. Faretman	Secretary: LOC:	L. Villadolid J. Konishi			
C.J. Lastinan S. Nagataki	Chairman: Secretary General: POC:	Munho Lee Chang-Soon Koh			
	Chairman: Co-chairman: Members:	CJ. Eastman YK. Choi M. Suzuki KB. Huh S. Tandhanand			
Korea Medical Publishing Company, Soual, Korea					

ATTA	The 5th AOTA Meeting 1993 Australia, May 2-5, 1993			
	President:	S. Nagataki		
THE FIFTH ASIA AND OCEANIA THYROID ASSOCIATION CONGRESS hosted by	Vice Presidents:	Chang-Soon Kol Chen Jia-Lun IP Stockigt		
THE ASIA AND OCEANIA THYROID ASSOCIATION in association with	Secretary:	J. Konishi		
THE ENDOCRINE SOCIETY OF AUSTRALIA	LOC:Australia Chairman:	C. Eastman		
FAIRMONT RESORT, LEURA BLUE MOUNTAINS, AUSTRALIA 2-5 MAY 1993	POC: Chairman: Members:	JR. Stockigt N. Amino B. Y. Cho D. J. Topliss		
PROGRAM AND ABSTRACTS				

	The 6th AOTA Meeting 1997 Osaka, November 9-12, 1997			
The 6th Asia and Oceania Thyroid Association Congress	President:	S. Nagataki		
The 40th Annual Meeting of Japan Thyroid Association Horemore 9-12, 1997 Osaka, Japan	Vice Presidents:	Chang-Soon Koh Chen Jia-Lun JR. Stockigt		
	Secretary:	J. Konishi		
	LOC: Japan			
The second se	Chairman:	T. Onaya		
	Vice Chariman	H. Seo		
TANK THE MAN	Secretary General:	J. Konishi		
C. C	POC:			
	Chairman: Members:	N. Amino BY. Cho H. Seo D. Topliss		
Program & Abstracts				

		The 1 <sup>st</sup> AOTA Meet	ting 1978
1978 Site:	Singapore		8
Time:	January 28-31, 1978		
President:	I B Hales	, Australia	
Vice Preside	ents:	G K Rastogi, India K Shizume, Japan L Villadolid, Philippines	
Secretary:	C J Eastr	nan, Australia	
Council:		No	
Organizing	Committee:	No	
Program O	rganizing Committee:	No	
Advisory C	ommittee:	No	
Scientific Pr	resentation (one room)		
Plenary Leo	ture	No	
Symposium		No	
Workshop		No	
1	Free Communio	cation	
F F C T N S	indemicity and Consequences tathogenesis of Endemic Goit Joiter Control Program hyroid Foundation Testing deasurement of Thyroid Horr specialised Techniques	s of goitre in South East Asia and Oceania re nones and TSH	10 9 6 8 11 8





**Status and Prospects** 

The most important issue is to bring young scientists to thyroid fields

Up-to-date sciences Enough funding for research Enough medical fee for ideal treatment in thyroid fields

To bring young people to thyroid fields is the responsibility of current leaders

in each country

### **Management of thyroid diseases**

Studies of pathophysiology

How much did we make progress since the establishment of AOTA

#### **Treatment of thyroid diseases**

No new treatment since the establishment of AOTA

How can we appeal to the public for funding thyroid diseases

## **Resposibilities**

How to promote the most up-to-date research in thyroid fields

How to appeal to the public and to bring the public attention

How to succeed to have enough funding

How to increase medical fee for ideal treatment of thyroid diseases

#### Investigation with thyroid glands Oncology

Thyroid cancer has variable types

well differentiated to anaplastic cancer from the same thyroid epithelial cells

Thyroid cancer can be detected from the very early stage, such as microcarcinoma

Thyroid cancer tissues or cells can be obtained by biopsy for microscopic as well as molecular examinations

Thyroid cancer can be increased by the known reason such as radiation and is age-dependent

Thyroid cancer can be treated by internal radiation as well as external radiation

Metastasis can be found by RAI and PET

Thyroid cancer is extremely useful for studies of oncology









### Study Themes as Scientific Knowledge Thyroid Cancer in Chernobyl

 •100-fold increase of cancer incidence in several years Unprecedented
•Opportunity to elucidate the mechanism of carcinogenesis Unprecedented
*Importance of collecting biological materials Importance of creating database for study subjects*

> Necessity of international collaboration system (EU, USA, Japan, WHO)

### Investigation with thyroid glands Immunology

Prevalence of autoimmune thyroid diseases are the highest among autoimmune diseases

Remission and relapse can easily be recognized

- Thyroid tissues and cells as well as infiltrated relevant cells can easily be obtained
- Some autoantibodies have clear functions
- Many autoantigens with functions are identified and cloned

Thyroid glands are the most ideal organ for studies of autoimmunity

## Welcome to the CTB Website



The CTB(Chernobyl Tissue Bank) is a unique venture. It is the first international cooperation that seeks to establish a colletion of biological samples from tumours and normal tissues from patients for whom the aetiology of their disease is known-exposure to radioiodine in childhood. The project was initially supported by the EC, and is now jointly funded by the EC, the National Cancer Institute(NCI) of the USA, Sasakawa Memorial Health Foundation of Japan(SMHF) and the World Health Organization(WHO). The project is coordinated from the University Wales, Swansea and has the full support of the Governments of Belarus, the Russian Federation and Ukraine.

PRIFYSGOL UNIVERSITY O

PRIFYSGOL CYMRU ABERTAWE

Investigation with thyroid glands Health effects of Environment Public Health Issues

Iodine deficient disorders are still suffering the largest population in the world

- Quantitative analysis of radiation effects is a paradigm for studying health effects of environmental disorders and thyroid diseases are the most important organ in radiation health effects
- Hormone disruptors, such as, bisphenol A, PCB, etc. exerted its effects through thyroid hormone actions
- Brain development is related to IDD and hormone disruptors

hyroid gland can show a paradigm for studying health effects of environmental disorders

### Investigation with thyroid glands Life-style related diseases

Obesity, Hypertension, Hyperlipidemia, Diabetes, Atherosclerosis, Osteoporosis, etc.

Thyroid hormone is well known to affect metabolism of all tissues and cells

Investigation of thyroid hormone may relate how to manage these serious diseases called as death quartet

**Biggest appeal to the public** 

## **Up-to-date sciences in AOTA**

Contribution of thyroid research through global collaboration with sister societies ETA, ATA, LATS has been and will be especially important to keep us in AOTA updated in the thyroid fields

**In the Future** We will be active and happy in our laboratories and in AOTA

Investigation of thyroid and with thyroid will bring us enough funding and will be attractive to young people as it was in the past

> Toast to the wonderful organ Thyroid!



Changes of Symposium Titles								
Titles	1	2	3	4	5	6	7	
Iodine and thyroid			#				#	
Autoimmunity				#	#		#	
animal model							#	
Thyroid physiology a	and horm	ione actio	on	#				
Clinical				#				
Thyroid cancer					#			
pathogenesis						#	#	
gene therapy							#	
TSH receptor and Al	b					#		
Molecular thyroidolo	ogy					#		
Thyroid and pregnat	ıcy					#	#	
Thyroid nodules							#	
Cell biology and sign	al transd	luction					#	
<b>Congenital hypothyr</b>	oidism						#	
<b>Environmental facto</b>	rs						#	

<b>Changes of Oral Session Titles</b>							
Titles	1	2	3	4	5	6	7
Goitre and iodine Clinical tests with I-131	25 19	28 20	13	9 11		4	
Autoimmunity	8	24	25	24	6	8	28
Hormone synthesis Hormone action Cell biology and growth			19	14 7 13	6 6	14 6	7 5 12
Thyroid cancer		20		14		6	21
Genetic aspects Thyroxine binding protein Neonatal screening	15		7 6	6		6	
TSH receptor Basic Advances Sodium/Iodide symporter Thyroid development Clinical				24	6 6	4 16	14 5

<b>Changes of Oral Session Titles</b>							
Titles	1	2	3	4	5	6	7
Iodine and thyroid genetic aspects	25	28	6 7	9		4	
Thyroid function test	8	20		11			
Measurement of hormone	11						
Autoimmunity	8	24	25	24	6	8	28
Hormone synthesis		19	7				7
Thyroid cancer		20		14		6	21
Genetic aspects			7			6	
Thyroxine binding proteins	s		6				
Thyroglobulin			7				
Neonatal screening			6				
Cell biology and growth				13	6	6	12
Hormone action				7	6	6	5
Clinical				12		8	
Hyperthyroid				12		8	
TSH receptor					6		
Basic Advances					6		
Sodium/Iodide symporter						4	14
Thyroid hormone receptor						8	
Thyroid development							5