

# 8th Joint Meeting on Developmental Paediatrics Subspecialty Developmental in China Tics / Environmental Health and DP

第八届儿童体智发展专科联合会议  
中国发育儿科学亚专科发展  
抽搐症 / 环境与发育儿科学

11 November 2010

二零一零年十一月十一日

Suzhou, China

中国苏州



The Hong Kong Society of Child Neurology and Developmental Paediatrics  
香港兒童腦科及體智發展學會

## Past Joint Developmental Paediatrics Meetings

- 2009** Autism Spectrum Disorders  
13 December, Shenzhen
  
- 2008** Formation of a Subspecialty in Developmental Paediatrics  
24 – 28 October, Nanjing
  
- 2007** Update on Childhood Visual Impairment  
12 – 13 October, Chengdu
  
- 2006** Childhood Attention Deficit Hyperactivity Disorder  
13 November, Hong Kong SAR
  
- 2005** Update on Childhood Hearing Impairment  
30 October, Beijing
  
- 2004** National Developmental Paediatrics Meeting  
10 – 12 May, Shanghai
  
- 2003** Child Neurology and Developmental Paediatrics Symposium  
11 – 12 October, Macau SAR

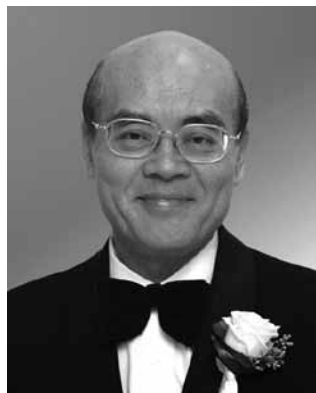


# CONTENTS

<b>Welcome Message</b> .....	1
<b>Organizer and Organizing Committee</b> .....	3
<b>List of Faculty</b> .....	4
<b>Programme</b> .....	5
<b>Synopsis</b>	
The development and prospect of Development-Behavioral Paediatrics in China • Professor MAO Meng (毛萌教授) .....	7
Regional service models in Nanjing • Professor TONG Mei Ling (童梅玲教授) .....	8
Regional service models in Beijing • Professor LIANG Wei Lan (梁卫兰教授) .....	9
Regional service models in Shanghai • Professor XU Xiu (徐秀教授) .....	10
Regional service models in Guangzhou • Professor JING Jin (静进教授) .....	11
Research on developmental paediatrics • Professoor YANG Hui Ming (杨慧明教授) .....	13
Clinical service of developmental paediatrics in child health centre • Professor YUE Hong Ni (岳虹霓教授) .....	14
Tic & tourette disorder – treatment strategies • Professor WANG Hui Shyong (王辉雄教授) .....	15
Tic disorders 2 • Dr. JIANG Fan (江帆医生) .....	16
Environmental risks and developmental paediatrics: the effect of iron deficiency on brain / behavior • Dr. SHAO Jie (邵洁医生) .....	17



## WELCOME MESSAGE



We are pleased to witness the Eighth Joint Meeting on Developmental Paediatrics between Hong Kong, Macau, Taiwan, Mainland China and Singapore being hosted at the beautiful city of Suzhou alongside with the Yangtze Delta Regional Conference on Paediatrics in November 2010. This year we are especially pleased to welcome this Meeting because we shall get together to celebrate the successful approval of Developmental Behaviour Paediatrics (DP) by the Chinese Pediatric Society as a Paediatric Subspecialty pending the final ratification by the Chinese Medical Association. This of course is the result of collective efforts of all DP subspecialists guided by Professors Wu Xi Ru, He Xiao Hu, Gui Yong Hao, Chen Ron Hua and headed by Professors Mao Meng, Jin Xing Ming and Jing Jin strongly supported by leading subspecialists from different parts of the Mainland China. This Meeting will thus be an important milestone in the history of paediatrics and child health in our part of the world.

Developmental Behavioural Paediatrics has received immense attention from professionals over the past two decades and gained momentum to achieve the present paramount state. We had world experts led by Professor Robert Armstrong (Canada) and Professor Karen Oldness (USA) chairing sessions on DP at our Asia Pacific Pediatric Association (APPA) Congress in Shanghai, China in October 2009, as well as Professor David Schonfeld (USA), Professor Brian Neville, China (UK), Professor Frank Oberclaide (Australia) participating at similar subspecialty sessions at the International Pediatric Association (IPA) Congress 2010 in Johannesburg, South Africa in August 2010. These world superb specialists together with experts from all IPA national member societies have categorically set the foundation of breadth and depth, clinical entities, accreditation criteria, training objectives, quality assurance, Continuous Medical Education (CME) and Continuous Professional Development (CPD), areas of research and future directions for DP subspecialty development. The IPA has also established a new Programme on Early Child Development in April 2010 co-chaired by Professors Mohammad Mikati and Chan Chok Wan to supervise and safeguard optimum pathway for global development and subspecialty interactions within the domain of pediatrics and child health. A similar programme under WHO and UNICEF has also been inaugurated where paediatricians actively participated. This is a time of good tidings for DP at the international child health arena.

In Hong Kong, the Hong Kong College of Paediatricians has just started doing subspecialty accreditation for DP. The entire procedure is strict, stringent, open, transparent, accountable, credible and responsible with powerful input from overseas DP experts. By virtue of the accreditation process, we are going to accredit training centres, trainers, trainees, programmes, supportive facilities and staff, special setups with objective outcome deliverables so as to ensure quality training and continuing education. The whole procedure will take more than one year and the successfully accredited subspecialists will be allowed to have their names put up onto the Specialist Register as Subspecialists in DP under the Medical Council of Hong Kong. The title is statutorily quotable and is an official recognition of one's expertise and experience within DP.

At the regional arena, I am pleased to witness that the ASEAN Congress of Paediatrics will be held in Singapore on 14 - 17 April 2011 whereby there will be a symposium designated for DP. I am most honoured to be invited to chair and give a talk on "Developmental Paediatrics: the Landscape of the Current and Future in the Region". This is a good signal that the subspecialty of DP is now evolving rapidly to take its own inertia by virtue of its intrinsic importance as foundation for paediatrics and child health as well as platform for development of other paediatric subspecialties.

It thus is very critical that the upcoming Meeting in Suzhou does shoulder three noble missions: (i) the Scientific Meeting to explore services on DP being implemented within our Mainland China, (ii) the Business Meeting to develop future collaboration and (iii) cooperation of DP subspecialists within our Region and cultivation of good fraternity amongst participants at the Meetings. We do have an added value of having two seminars on Tics and Environmental Health within DP to be materialized within the Meeting period - an ambitious meeting programme which I am sure we shall achieve.

No scientific meeting can be successfully organized without the enthusiastic efforts of its organizers. My thanks are due to Leaders of Child Health and Paediatrics from the region and to Members of the Organizing Committee notably Dr. Catherine Lam, Professor Mao Meng, Professor Jin Xing Ming, Professor Jing Jin and Dr. Sylvia Doo for their contributions as well as to Pfizer (China) Ltd. for their generous financial contribution. Most important of all, I would like to thank all participants for the immense support which you have rendered to us and which are always vital to the success of our Scientific Meeting. For all your contributions I am most grateful!

I salute to all those who contributed to the success of this Joint Meeting and wish you an enjoyable and fruitful meeting in Suzhou!



**Dr. CHAN Chok Wan**  
*Co-chairman, Organizing Committee*  
*8th Joint Meeting on Developmental Paediatrics*  
*Suzhou, 11 November 2010*



## ORGANIZER



The Hong Kong Society of Child Neurology and Developmental Paediatrics

香港儿童脑科及体智发展学会

E-mail: [hkcndp@hongkong.com](mailto:hkcndp@hongkong.com)

Website: [www.fmshk.com.hk/hkcndp](http://www.fmshk.com.hk/hkcndp)

## ORGANIZING COMMITTEE

**Co-chairman:** Dr. CHAN Chok Wan (陈作耘医生)

Professor WU Xi Ru (吴希如教授)

**Hon. Secretary:** Dr. Catherine LAM (蓝芷芊医生)

Dr. Sylvia DOO (杜蕴瑜医生)

**Local Convenor:** Professor FENG Xing (冯星教授)

Professor GU Gui Xiong (古桂雄教授)

**Members:** Professor GUI Yong Hao (桂永浩教授)

Professor HE Xiao Hu (何晓琥教授)

Professor CHEN Rong Hua (陈荣华教授)

Professor HO Lai Yun (何乃殷教授)

Professor JIN Xing Ming (金星明教授)

Professor JING Jin (静进教授)

Dr. LEE Pui I (李佩仪医生)

Professor MAO Meng (毛萌教授)

Professor SHEN Xiao Ming (沈晓明教授)

Professor WANG Hwei Shyong (王辉雄教授)

## LIST OF FACULTY

Name	City	Abstract
CHAN, Chok Wan ( 陈作耘医生 )	Hong Kong SAR	-
CHEN, Rong Hua ( 陈荣华教授 )	Nanjing	-
DOO, Sylvia ( 杜蕴瑜医生 )	Hong Kong SAR	-
FENG, Xing ( 冯星教授 )	Suzhou	-
GU, Gui Xiong ( 古桂雄教授 )	Suzhou	-
GUI, Yong Hao ( 桂永浩教授 )	Shanghai	-
HE, Xiao Hu ( 何晓琥教授 )	Beijing	-
JIANG, Fan ( 江帆医生 )	Shanghai	p.16
JIN, Xing Ming ( 金星明教授 )	Shanghai	-
JING, Jin ( 静进教授 )	Guangzhou	p.11
LAM, Catherine ( 蓝芷芊医生 )	Hong Kong SAR	-
LEE, Pui I ( 李佩仪医生 )	Macau SAR	-
LI, Fei ( 李焯教授 )	Shanghai	-
LI, Ting Yu ( 李廷玉教授 )	Chongqing	-
LIANG, Wei Lan ( 梁卫兰教授 )	Beijing	p.9
MAO, Meng ( 毛萌教授 )	Chengdu	p.7
SHAO, Jie ( 邵洁医生 )	Hangzhou	p.17
TONG, Mei Ling ( 童梅玲教授 )	Nanjing	p.8
WANG, Hui Shyong ( 王焯雄教授 )	Taipei	p.15
XU, Xiu ( 徐秀教授 )	Shanghai	p.10
YAN, Chong Huai ( 颜崇淮教授 )	Shanghai	-
YANG, Hui Ming ( 杨慧明教授 )	Chengdu	p.13
YANG, Yu Feng ( 杨玉凤教授 )	Xian	-
YUE, Hong Ni ( 岳虹霓教授 )	Huaian	p.14
ZHANG, Chong Fan ( 张崇凡教授 )	Shanghai	-
ZHU, Ju ( 朱军教授 )	Chengdu	-

**The Organizing Committee would like to thank the faculty members for their invaluable contributions to the meeting!**



# PROGRAMME

Time 时间	Topic 主题	Speakers 讲者
08:30 – 09:00	<b>REGISTRATION 注册</b>	
09:00 – 09:10	<b>OPENING REMARKS</b> 开幕致词 Chairmen: Professor FENG Xing (冯星教授) Professor GU Gui Xiong (古桂雄教授)	Dr. CHAN Chok Wan (陈作耘医生) Hong Kong SAR  Professor HE Xiao Hu (何晓琥教授) Beijing
<b>SEMINAR 1: SUBSPECIALTY DEVELOPMENT UPDATES</b> Chairmen: Professor HE Xiao Hu (何晓琥教授), Dr. Catherine LAM (蓝芷芊医生)		
09:10 – 09:25	DP subspecialty in China 中国发育儿科学亚专科发展	Professor GUI Yong Hao (桂永浩教授) Shanghai
09:25 – 09:40	Report on DP subspecialty application in China 发育儿科学亚专科发展进程	Professor JIN Xing Ming (金星明教授) Shanghai
09:40 – 09:55	The development and prospect of Development-Behavioral Paediatrics in China 儿童保健与发育行为儿科学的协调发展	Professor MAO Meng (毛萌教授) Chengdu
<b>SEMINAR 2: SERVICE MODELS PART I: REGIONAL SERVICE MODELS IN MAINLAND CHINA</b> Chairmen: Professor JIN Xing Ming (金星明教授), Professor CHEN Rong Hua (陈荣华教授)		
09:55 – 10:10	Regional service models in Nanjing 发育行为儿科学在妇幼保健机构中的临床实践 – 发育筛查与评估技术	Professor TONG Mei Ling (童梅玲教授) Nanjing
10:10 – 10:25	Regional service models in Beijing 北京地区发育儿科学模式	Professor LIANG Wei Lan (梁卫兰教授) Beijing
10:25 – 10:40	Regional service models in Xian 西安地区发育行为儿科学模式	Professor YANG Yu Feng (杨玉凤教授) Xian
10:40 – 10:55	Regional service models in Shanghai 上海地区发育行为儿科学模式	Professor XU Xiu (徐秀教授) Shanghai
10:55 – 11:25	<b>TEA BREAK 茶歇</b>	



Time 时间	Topic 主题	Speakers 讲者
<b>SEMINAR 3: SERVICE MODELS PART II: REGIONAL SERVICE MODELS IN MAINLAND CHINA</b> Chairmen: Professor JING Jin ( 静进教授 ), Professor YANG Yu Feng ( 杨玉凤教授 )		
11:25 – 11:40	Regional service models in Guangzhou 广东省发育行为儿科学发展现状与模式	Professor JING Jin ( 静进教授 ) Guangzhou
11:40 – 11:55	Research on developmental paediatrics 发育行为儿科学的循证研究	Professor YANG Hui Ming ( 杨慧明教授 ) Chengdu
11:55 – 12:10	Clinical service of developmental paediatrics in child health centre 儿童健康中心的发育临床实践	Professor YUE Hong Ni ( 岳虹霓教授 ) Huaian
12:10 – 12:25	Regional service models in Chongqing 重庆地区发育行为儿科学模式	Professor LI Ting Yu ( 李廷玉教授 ) Chongqing
12:25 – 12:40	Research on developmental paediatrics 发育行为儿科学研究的评价	Professor ZHANG Chong Fan ( 张崇凡教授 ) Shanghai
12:40 – 13:40	<b>LUNCH BREAK 午餐</b>	
13:40 – 14:40	<b>SEMINAR 4: ROUND TABLE DISCUSSION : HOW TO CARRY DP FRONT LINE SERVICES FORWARD</b> Chairmen: Dr. CHAN Chok Wan ( 陈作耘医生 ), Professor GUI Yong Hao ( 桂永浩教授 ), Professor MAO Meng ( 毛萌教授 )	
<b>SEMINAR 5: SELECTED TOPICS WITHIN THE SUBSPECIALTY OF DP: TIC DISORDERS</b> Chairmen: Professor LI Ting Yu ( 李廷玉教授 ), Professor WANG Hui Shyong ( 王辉雄教授 )		
14:40 – 15:00	Tic & tourette disorder – treatment strategies 抽搐症及妥瑞症之治疗	Professor WANG Hui Shyong ( 王辉雄教授 ) Taipei
15:00 – 15:15	Tic disorders 2 ADHD 共病抽动障碍的诊治	Dr. JIANG Fan ( 江帆医生 ) Shanghai
15:15 – 15:45	<b>TEA BREAK 茶歇</b>	
<b>SEMINAR 6: SELECTED TOPICS WITHIN THE SUBSPECIALTY OF DP: ENVIRONMENT HEALTH AND DP</b> Chairmen: Dr. LEE Pui I ( 李佩仪医生 ), Dr. Sylvia DOO ( 杜蕴瑜医生 )		
15:45 – 16:00	Environment and DP 1 环境健康与发育儿科学	Professor ZHU Ju ( 朱军教授 ) Chengdu
16:00 – 16:15	Environment and DP 2 children's environmental health research and developmental paediatrics 环境健康与发育儿科学之研究	Professor YAN Chong Huai ( 颜崇淮教授 ) Shanghai
16:15 – 16:30	Environmental risks and developmental paediatrics: the effect of iron deficiency on brain / behavior 环境危险因素与发育儿科学：缺铁对大脑 / 行为的影响	Dr. SHAO Jie ( 邵洁医生 ) Hangzhou
16:30 – 16:45	Environment and DP 4 环境健康与发育儿科学	Professor LI Fei ( 李辉教授 ) Shanghai
16:45 – 17:00	<b>CLOSING REMARKS</b> 闭幕词	Dr. CHAN Chok Wan ( 陈作耘医生 ) Hong Kong SAR



# **The development and prospect of Developmental-Behavioral Paediatrics in China**

( 儿童保健与发育行为儿科学的协调发展 )

Professor MAO Meng ( 毛萌教授 )

四川大学华西第二医院院长，Chengdu

发育行为儿科学是顺应新的医学模式发展起来的儿科学亚学科，其核心是关注儿童与发育有关的器官系统疾病和心理行为问题。我国的发育行为儿科学已经蓄势待发。然而，儿童保健学与发育行为儿科学的发展需要在制定长远发展目标和发展规划的基础上，既有分工，更加突出各自的领域优势；又要合作，整合资源加以利用，不断相互促进，相互补充，得到又好又快的发展。而加强学科内涵建设，尤其是人才队伍建设是当务之急。

Developmental-Behavioral Paediatrics (DP) is developing with the bio-psycho-social model of medicine and is becoming a new subdivision of paediatrics. The core content of DP focuses on not only the disorders of organs and systems, but also psychological and behavior problems, related with the development in childhood. The DP of China is ready to be rolled-out.

Keywords: developmental and behavior paediatrics, development, prospect.

## Regional service models in Nanjing

(发育行为儿科学在妇幼保健机构中的临床实践 – 发育筛查与评估技术)

Professor TONG Mei Ling (童梅玲教授)

妇幼保健院保科主任，南京市儿童保健所所长，Nanjing

随着社会和医学的发展，儿科疾病谱正在发生明显的改变，儿童生长发育过程中出现的生长发育偏离、心理问题和行为障碍已逐渐成为儿科学与儿童保健专业关注的重点。例如：视觉发育障碍，听觉发育障碍，早产儿、低体重儿等高危儿的早期干预，孤独症，注意缺陷多动障碍，学习障碍以及在慢性疾病伴随着心理改变等等，这些问题严重妨碍了儿童的健康发展和健康水准。如果能在妇幼保健机构中加强运用发育行为儿科学的理论与方法，开展规范的儿童发育筛查和评估，早期发现，早期干预和治疗发育偏离和障碍的儿童，就能最大程度得减轻这些问题对儿童健康带来的影响，减轻家庭和社会的负担，这无论对个人、家庭还是社会都具有很大的意义。

虽然目前在妇幼保健机构的儿童保健工作中已经开展了一些对儿童发育的筛查和评估技术，但各机构和各级在专案内容、技术水平、专业设备上相差甚远，没有统一的规范，缺乏逐级的转诊、多专业的合作，影响到对偏离和障碍儿童的早期发现。迫切需要在妇幼保健机构中结合现有的三级儿童保健机制建立层级网路，实行全面筛查、逐级转诊、专业测评和早期干预，不遗漏一个儿童，让每一个儿童在发育过程中受到监测，保障和促进他们的健康成长。

在妇幼保健机构中各级机构的主要工作内容：

### (一) 三级：市级妇幼保健机构

1. 提供专业系统的评估。2. 培训下级机构的保健医护人员。3. 对家长提供支援。4. 与多学科合作。5. 安排和提供干预和康复服务。6. 对测评的资料进行统计分析。

### (二) 二级：各区妇幼保健所

1. 复筛：对一级机构转诊的儿童进行复筛和审核。2. 转诊：为需要专业测评的儿童开具转诊单，安排测评事宜。3. 随访：对测评的儿童进行跟踪与随访，与了解他们的康复程度。4. 社区康复与训练：对恢复期的儿童开展训练与康复，巩固疗效。5. 资料登记与统计：对转入和转出的儿童进行登记和统计。

### (三) 一级：社区妇幼保健站 民政康复机构等

1. 筛查：通过询问和简单的量表对儿童发育水平进行筛查。2. 转诊：为筛查未通过的儿童开具转诊单，转至二级机构进行复筛。3. 家庭支持和家长教育。4. 登记工作：做好筛查工作的登记。



## Regional service models in Beijing

(北京地区发育儿科学模式)

Professor LIANG Wei Lan (梁卫兰教授)

北京大学第一医院预防保健科主任, Beijing

北京市各地段保健科负责辖区内儿童保健工作并且包括儿童预防接种。地段医院保健科发育行为方面的工作内容主要是按照北京市儿童保健管理常规中要求执行。常规中要求医院保健科对所有儿童在 8~12 月龄用 DDST 方法做一次智力筛查, 对有高危因素的儿童(如早产、低出生体重、围产期脑损伤、母亲高龄初产、HIE、新生儿病理性黄疸等)出生后 3 个月至 2 岁进行 4 次智力监测, 发现异常者及时转诊, 对可疑者复查随诊。地段保健科或区县妇幼保健发现异常儿童向首都儿科研究所儿保科、北京市妇幼保健院、北大精研所儿科、北京儿童医院、北大医院儿科等转诊。

北京市在发育儿科学方面做得较多的医院有: 首都儿科研究所、北京市妇幼保健院、北大精研所儿科、北京安定医院、北京儿童医院、海地区妇幼保健院、北大医院、北医三院、解放军八一儿童医院、中国康复中心、北京市残疾人康复中心等。

目前北京市开展的有关儿童发育行为方面的测评及训练包括: 1. 智力测评方面: DDST、GESELL、贝利婴儿发展量表、韦氏(大、小)、儿心量表(首都儿研所)、瑞文、PPVT 等。2. 适应行为量表: 婴儿初中学生社会生活能力量表、儿童适应行为评定量表、Achenbach 儿童行为量表(4~16 岁)、Rutter 儿童行为量表、Conner 儿童行为量表等。3. 孤独症量表: 孤独症儿童行为检查量表、儿童孤独症评定量表、克氏孤独症行为量表等。4. 训练方面有: 肢体运动康复训练、孤独症儿童的康复、感统训练、多动症训练、语言康复训练等。

## Regional service models in Shanghai

(上海地区发育行为儿科学模式)

Professor XU Xiu (徐秀教授)

复旦大学附属儿秘医学儿童保童科主任, Shanghai

上海地区自 20 世纪 70 年代起, 在郭迪教授、刘湘云教授、许积德教授、沈晓明教授、金星明教授等老一辈儿童保健专家的带领下, 经过近 40 年的发展, 已逐渐在儿童保健领域中将发育行为儿科学发展成一个独有特色的专科, 打下了良好的基础。在上海地区, 不仅引进了一系列筛查性心理测试、诊断性心理测试, 并在标准化之后, 应用于临床, 包括丹佛发育筛查测试、皮博迪图片词汇测试、画人试验、入学准备测试、气质测评、韦克斯勒学前及初小儿童、学龄儿童的智力量表、盖塞尔发育诊断性测验、贝利儿童发育量表等; 还根据我国国情自行设计编制了的“0-6 岁儿童发育筛查测验”、“0-6 岁儿童语言筛查量表”。在二级、三级专科医院的儿保科内已开展了儿童多动症、学习困难、行为问题的专科门诊, 在教学医院进一步开设了语言障碍、孤独症谱系障碍、注意缺陷多动障碍、学习障碍门诊, 并在住院医师、研究生、进修医生讲座中开设发育行为儿科专题讲座, 邀请国外专家来华讲学, 举办相关学术会议及全国继续教育培训班等等。

上海地区的发育行为儿科学起源于儿童保健领域中, 其未来的发展过程中必然和现有的儿童保健专业人员密切相关, 同时学科还与神经、精神、心理、教育、康复等专业有着千丝万缕的关系, 因此学科发展中, 专业内和跨专业的相互协作也至关重要。



## Regional service models in Guangzhou

(广东省发育行为儿科学发展现状与模式)

Professor JING Jin (静进教授)

中山大学公共卫生学院妇幼卫生系附属三院儿童发育行为中心

### (一) 发展历程

随着广东经济文化发展，儿童心理卫生保健事业也得到快速发展。1989年7月原中山医科大学邓桂芬教授在广东省创办了第一家“儿童体质与心理发展评估谘询中心”并对外开展咨询指导服务，至1996年底不完全统计诊疗谘询儿童数达到4千多人次。期间邓教授在全省举办过多次校医和儿童保健医师培训，并派部分青年教师和医师借美国中华医学基金会(CMB)项目资助到美国、加拿大、日本进修学习行为医学，带回许多宝贵技术与理念，在广东省建立了儿童心理卫生工作的预防医学与教育学实践相结合雏型。其后邓桂芬、静进等借WHO与卫生部的105项目县指导工作，在珠海、顺德妇幼保健院创建了儿童早期教育和高危儿早期干预技术平台，组织培训了1百多名儿童保健医师和护士。

1995年11月在原中山医科大学举办了“第三届全国儿童发育与行为学术大会”，国内知名专家教授如郭迪、刘湘云、左启华、汪梅先、姚凯南、林庆、杨宝珍、汪天柱、邓桂芬、金星明、区慕洁等参会并做了重要报告，亦邀请香港、日本学者到会交流。大会主题中阐述了全国(包括广东)发育与行为儿科学体系的发展思路和人才培养、学科建设方面的建议，为我国和广东省发育和行为儿科学的发展提出了重要的理论指导思想。

1996年7月起，静进教授带领广东省儿童心理卫生专业委员会在全省开展期每年一期国家级继续医学教育专案《儿童青少年心理卫生保健和临床心理保健技术》，迄今累计受众达3千多人次，并于当年底在广州市儿童体质研究会创建了第一家“儿童感觉统合训练中心”开始矫治训练各类发育行为问题儿童。同时与日本白百合女子大学儿童发育行为中心开展起为期10多年的合作研究，迄今先后派25人次赴日研修学习，共同发表学术论文100多篇，亦获得了日方许多技术和经费资助。同年专业委员会还在韶关召开了全省儿童心理卫生保健学术大会，邀请国内外著名学者进行讲座，为全面开展全省儿童心理卫生保健工作做了充分筹备，同时与全省学校卫生和校医组织建立了广泛的工作和业务联系。

1997年6月至10月，借广东省卫生厅组织专家宣教和贯彻“中华人民共和国母婴保健法”实施，邓桂芬、陈忠良、静进等教授在广州、珠海、深圳、江门、顺德、肇庆妇幼保健院开展了临床儿童心理门诊工作的指导与专科创建工作。并在广东省首届妇幼保健大会上提出了妇幼保健机构创建儿童心理门诊框架的指导意义，得到省卫生厅的重视与首肯。

1999年9月邹小兵和静进教授在中山医科大学附属三院儿科创建了集临床、教学和科研为一体的“儿童发育行为中心”，开始实施起真正意义上的发育与行为儿科学工作，迄今诊疗各类发育和行为障碍儿童总数达2万5千多人次，亦为多家媒体报道介绍，获得较高声望和荣誉；期间在该中心举办过多次学术交流会议，亦为省内外培训了众多发育行为儿科专业医师，主持申报了多项国家和省部级课题，迄今培养了数十名硕士和博士研究生。2005年11月邹小兵和静进主编出版了我国第二部《发育行为儿科学》专著。

2000年起，为推动全省儿童发育与行为工作的开展，静进等给省卫生厅基妇处多次提交关于在妇幼保健院开展儿童发育行为工作的建议，并通过省卫生厅基妇处动员全省妇幼保健机构专业人员积极参与全国性各类学术活动，同时走访珠江三角洲多家妇幼保健机构进行学科平台建设的现场指导工作。2004年7月为广东省卫生厅起草了《广东省妇幼保健机构儿童心理卫生保健服务管理规范》，同年11月省卫生厅颁发了《关于开展广东省儿童心理卫生保健示范单位创建活动通知》文件，标志着全省妇幼保健机构创建发育行为儿科学体系的工作全面开展，迄今已评估验收了16家妇幼机构的示范点。2008年6月，启动了全省“妇幼安康工程”的《建立发育和行为障碍儿童的矫治干预体系》项目，在揭阳市妇幼保健院建立了示范点。期间静进全程参与了各届全国和港澳台新加坡联合举办的发育行为儿科学(DP)会议，并于2009年底在深圳承办了第七届DP大会。

## (二) 发展模式

1. 发育和行为儿科平台依托大学附属医院儿科，建构了预防医学和临床医学相结合的模式，并拓展教育学领域的积极参与，参与指导全省相关领域工作的开展，为建立三级预防保健网奠定了基础。
2. 积极与政府决策机构沟通和建立合作联系，动员政府资源为当地发育行为儿科事业的拓展提供支持，通过政府渠道扩大学科工作面和影响力。
3. 集教学、科研、临床和人才培养为一体的模式，相互补充、相互依托、相互促进。
4. 积极开展区域间和国际间的交流与合作，跟进前沿、汲取营养、取长补短。
5. 重视和积极开展民众健康教育，提升家长的认识，拓展发育和行为儿科学各方面业务。
6. 借助学/协会力量和专业杂志平台开展学术交流与科研总结，从而扩大了学科影响。



## Research on developmental paediatrics

(发育行为儿科学的循证研究)

Professor YANG Hui Ming (杨慧明教授)

四川大学华西第二医院儿科副教授

### (一) 循证医学概念

循证医学的核心思想是医疗决策应在现有的最好的临床研究依据基础上作出。许多随机对照试验结果表明，一些理论上应该有效的治疗方案实际上无效或害大于利。而另一些似乎无效的治疗方案却被证实利大于害，应该推广。1992年，加拿大麦克玛斯特大学临床流行病学家 David Sackett 教授提出了循证医学。并在2000年时将循证医学定义为：“谨慎地、明确地、明智地应用当代最佳证据（资料），对个体患者医疗作出决策”。

循证医学与传统医学的区别存在于以下各方面：证据来源、评价结果的指标、对研究方法的要求、对样本量的要求等。

循证证据分级

### (二) 发育行为儿科学的研究现状

近年来发育行为儿科学的相关研究和文献有递增的趋势，但大规模、高质量的 RCT 及系统评价的循证研究有限。

### (三) 循证医学应用于发育行为儿科

循证医学的过程：1. 提出问题。2. 寻找科学依据：Cochrane 图书馆、Medline 及其他资料库。3. 评价证据——真实性、可靠性、实用性进行评价。4. 应用于具体的个体化病人。

发育行为儿科循证实践（举例说明）



## **Clinical service of developmental paediatrics in child health centre**

( 儿童健康中心的发育临床实践 )

**Professor YUE Hong Ni ( 岳虹霓教授 )**

淮安市妇幼保健院副院长

**目的：**从儿童保健的发展方向出发，探讨提供全面、连续、个性化的定量检测，基于检测的个性化指导和适宜儿童发展的环境，全面提高儿童体格、生理、心理、社会适应能力。

**方法：**从学科体系出发，规划由全科体检与健康管理和免疫接种与疾病预防、五官保健与视听筛查、发育监测与营养指导、运动功能检测与训练、脑瘫筛查评估与康复、体质定量监测与促进、认知心理评估与训练等八个专科组成的儿童健康中心。

**结果：**一个全科与七个专科间的转诊，丰富了体检的内涵，满足了不同层面的家长 and 不同疾病儿童的需求；从专业的角度定量检测的乳汁营养成分、蛋白质缺乏 / 尿酸等儿童营养指标和健康厨房情景式的人工喂养、辅食添加、饮食结构和饮食习惯的指导与训练，让每个儿童达到了自身最佳的营养状态和适宜的发育条件；定量的爬行 / 步态、四肢准确性 / 反应速度、静态平衡 / 运动协调性检测和个性化、情景式指导的专项训练，促进了儿童不同形式运动功能的均衡发展；视听、记忆、注意力的检测和儿童神经心理发育程度的筛查与视听多媒体综合训练促进了儿童感知、注意、记忆、思维和言语的全面发展。

**结论：**基于学科体系的儿童健康中心使儿童保健的业务更具专业性、系统性和规范性；学科体系建设使儿保医师找到了自身的学术方向和询证医学的依据；儿童健康中心满足了一个团队服务于一个保健物件及家属的最大心愿；情景式训练适宜儿童早期、全面、均衡发展的理念。



## **Tic & tourette disorder – treatment strategies**

**Professor WANG Huei Shyong (王輝雄教授)**

Department of Paediatrics, Chang Gung Children's Hospital, Taipei

Tics are repetitive, sudden, rapid, nonrhythmic, stereotyped movements or sounds which usually occur in response to a sensation or an urge and often occur in bouts. Tic disorders including Tourette Disorder (TD) are commonly encountered in clinical practice. Approximately 5% (range: 4~19%) of school-aged children have tics and 1 % (range: 0.5~4%) have TD.

Tic disorders and TD are frequently associated with comorbid conditions such as obsessive compulsive symptoms, attention deficit-hyperactivity disorder, self injurious behavior, anxiety and depression, sleep difficulties and other behavior disorders. Cortico-striato-thalamo-cortical circuits and the dopaminergic system are believed to be involved in the pathophysiology of TD and tics.

In the experience at Taiwan, excessive physical and/or mental exercise to shift the energy for tics and all comorbidities to meaningful and interesting activity alone may help most children with tics, especially those mild and recent-onset cases. And some of them finally become famous athletes, musicians, art performers, politicians, physicians, and so on. We all know that male dominance for more than 5 times than females. However, many family members, including females, have different comorbid conditions with/without tics. Family adaptation is very important for the outcome of children with tic disorders or TD. School adaptation is very important too.

Pharmacological options that have been studied for treatment of tic disorders are dopamine modulating agents, alpha-2-adrenergic agonists and others (baclofen, benzodiazepines, botulinum toxin, delta-9-tetrahydrocannabinol, dopamine agonists, flunarizine, levetiracetam, naloxone, ondansetron, etc.). Behavior therapy such as habit reversal training, and surgical treatment as deep brain stimulation and perhaps vagus nerve stimulation are other options. It is essential to identify and address comorbid conditions as they often cause more distress and disability than tics themselves.

## Tic disorders 2

(ADHD 共病抽动障碍的诊治)

Dr. JIANG Fan (江帆医生)

Shanghai

ADHD 的患儿中有 11% 共病有抽动障碍，而在 Tourette 综合症的患儿中则有 50% 同时共病 ADHD。因此两者之间的关系非常密切。近年来研究发现基底节环路以及边缘系统的改变可能是抽动障碍共病 ADHD 的主要机制所在。抽动障碍中，无论是短暂性抽动障碍、慢性运动或发声障碍，或者是 Tourette 综合症都有可能共病 ADHD，其发作的临床特点也与单纯性抽动障碍的症状相似。在 ADHD 共病抽动障碍的患儿中，评估对抽动症状的治疗方案时，其治疗策略也与单纯性抽动障碍的相类似，也就是单纯性抽动障碍以心理行为治疗为主、慢性运动或者发生障碍的如果症状比较重，考虑在心理行为治疗基础上合用药物治疗，如果诊断为 Tourette 综合症的，则在心理行为治疗基础上需要更多的药物治疗。目前，治疗抽动症获得许可的药物有：氟哌啶醇、硫必利；未获得许可、部分有效的有：可乐定、利培酮、舒必利、劳拉西泮等；未获许可，可能有效的有 SSRI 类药物；而近期通过美国 FDA 并在英国精神科用药指南上指出以下药物可以用于抽动症的治疗：奎硫平、奥氮平、阿立哌唑、齐拉西酮。通常 ADHD 同时共病抽动障碍的儿童中，都会首先使用控制 ADHD 的药物，有研究报道，中枢神经系统兴奋剂可能会使 30% 的患儿抽动症状加剧，但是也有 30%-40% 在使用了中枢神经系统兴奋剂后抽动症状缓解。而在使用托莫西汀的患儿中，则未见有加重抽动症状的。近期发表的评估 ADHD 共病抽动障碍患者的药物使用的荟萃分析研究报道，治疗 ADHD 的四类药物中，中枢神经系统兴奋剂、托莫西汀、可乐定以及去甲哌嗪对改善 ADHD 的症状均有效，但是在同时改善抽动症状方面可乐定以及托莫西汀有明显的优势。

### References:

1. Pliszka SR. Treating ADHD and Comorbid Disorders; 2009:139-145.
2. Pliszka SR, AACAP. J Am Acad Child Adolesc Psychiatry. 2007;46(7):894-921.
3. Barkley RA. The ADHD Report. 2009;17(2):1-11,16.
4. Bloch MH, et al. Meta-analysis: treatment of attention-deficit/hyperactivity disorder in children with comorbid tic disorders. J Am Acad Child Adolesc Psychiatry. 2009 48(9):884-93.
5. Ludolph AG, et al. Are amygdalar volume alterations in children with Tourette syndrome due to ADHD comorbidity? Dev Med Child Neurol. 2008 ;50(7):524-9.



## **Environmental risks and developmental paediatrics: the effect of iron deficiency on brain / behavior**

**Dr. SHAO Jie (邵洁医生)**

Department of Child Health Care, Children's Hospital, Zhejiang University, Hangzhou

Developmental paediatrics consists of linked domains of sensori-motor, cognitive-language, and social-emotional function. Biological and psychosocial environmental risk factors can contribute to these adverse outcomes in child. Here we use the term environmental risk factor to refer to biological and psychosocial hazards that can compromise child development and behavior. Biological risk factors include nutrition (e.g. childhood malnutrition, iron deficiency, etc.), diseases and environmental exposure. Psychosocial risks most involve family social-economic status, parenting factors, caregiver affect, family function, community quality and available of health care. Biological and psychosocial risks affect development through changes in brain structure and function. Early iron deficiency is one of such risk factors.

In animal (rodent) models, early iron deficiency anaemia—before and after iron repletion—alters brain metabolism and neurotransmission, myelination, and gene and protein profiles. Prenatal iron deprivation in non-human primates altered activity, impulsivity, and wariness; postnatal iron deprivation impaired emotional and cognitive development. Most studies on developmental/behavioral effects of ID focus on the infancy period of peak prevalence, which is 6-24months. At least 16 studies found poorer cognitive, motor, and/or social/emotional functioning in IDA infants, compared with those without. A recent meta-analysis estimated long-term effects on IQ to be 1.73 points lower for each 10 g/L decrease in haemoglobin. Follow-up in adolescence of Costa Rican children with ID showed lower motor scores, more grade repetition, anxiety or depression, social problems, and inattention and a widening gap in cognitive scores to 19 years, despite iron therapy that corrected their anaemia in infancy. Compared with nonanemic infants, those with IDA have shown a slower speed of neural transmission by using auditory brainstem responses, altered rapid eye movement density in active sleep, poorer recognition memory with event-related potentials. At 10 in Chile to 19 years in Costa Rica, former ID children showed poorer performance for special memory, selective attention, and did worse on executive function, particularly ones requiring inhibition and planning.

In summary, 6-to24-month-old infants with IDA are at risk for poorer development and behavior in the short term. IDA in this age period is also consistently associated with poorer long term outcome. The results emphasize the importance of protecting the developing brain from early ID.







