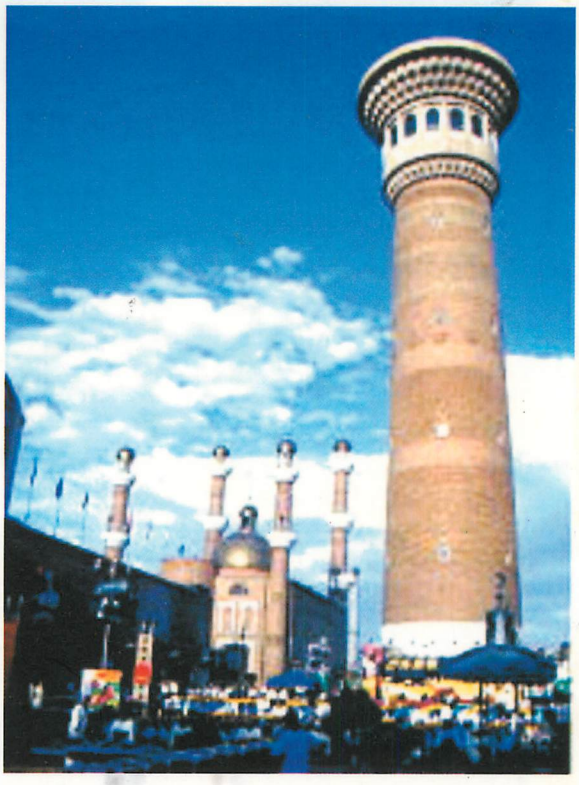
The Fourth International Symposium of Molecular Pathology

2006.8.6-9, Urumqi, the People's Republic of China



Hosted by

China Medical University

Co-hosted by

Kagoshima University

Organizer

Xinjiang Medical University

The 1st International Symposium of Molecular Pathology

The 2nd International Symposium of Molecular Pathology

The Fourth International Symposium of Molecular Pathology
2006.8.6－9, Urumqi, the People's Republic of China.

Organizing and Scientific Committee

President	Xinshan Jia(贾心善)	China Med. Univ.
	Kazuhisa Hasui(莲井和久)	Kagoshima Univ.
	Jinlong Ma(马金龙)	Xinjiang Med. Univ.
Japanese scientific committee		
	Junichi Hata(秦顺一)	Keio Univ.
	Masafumi Abe(阿部正文)	Fukushima Univ.
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	Motohiro Takeya(竹屋元裕)	Kumamoto Univ.
	Masatoshi Watanabe(渡边昌俊)	Mie Univ.
	Eiichi Sato(佐藤荣一)	Kagoshima Univ.
	Suguru Yonezawa(米泽杰)	Kagoshima Univ.
	Kazuhisa Hasui(莲井和久)	Kagoshima Univ.
	Katsuyuki Aozasa(青笹克之)	Osaka Univ.
Chinese scientific committee		
	Xinshan Jia(贾心善)	China Med. Univ.
	Jinlong Ma(马金龙)	Xinjiang Med. Univ.
	Weigang Fang(方伟冈)	Beijing Univ.
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	Jin Cui(崔进)	Kunming Med. Coll.
	Jialun Wang(王嘉伦)	Shenyang Med. Coll.

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General Information of the Fourth International Symposium of Molecular Pathology

Date: August 6 – 9, 2006

Venue: The symposium will be held in the meeting room of Xinjiang Medical University in Urumqi.

Language: The official language of the symposium is English

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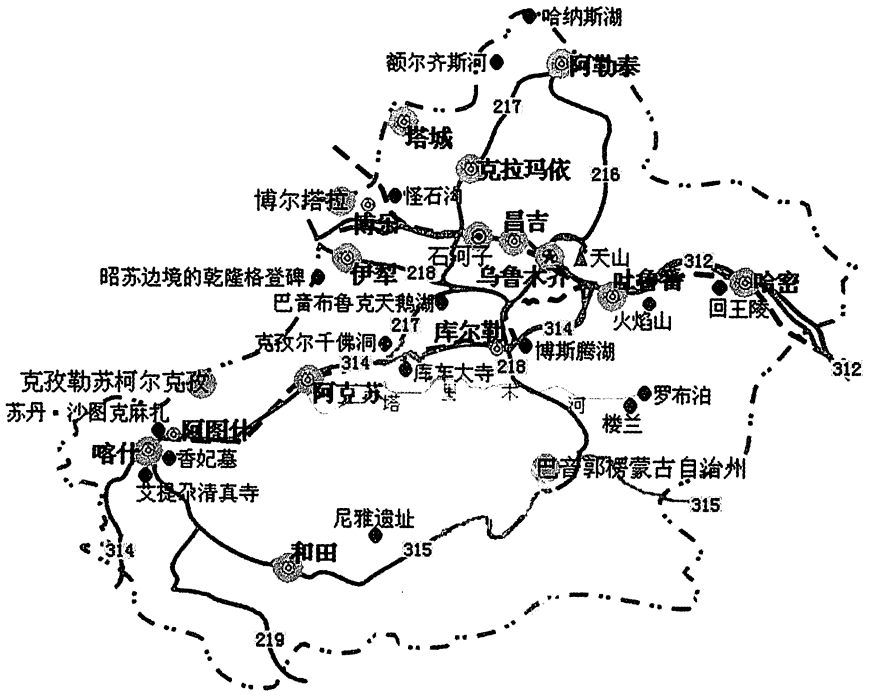
Wear: Informal.

Registration: Most of the participants are pre – registered. People who want to attend the symposium must contact the Chinese side President of the symposium.

Special lecture: The presenter must finish the oral presentation within 25 min and leave at least 5 min for discussion.

Lecture: The presenter must finish the oral presentation within 12min and leave at least 3 min for discussion.



Greeting

Ladies and Gentlemen:

First of all, please allow me to represent the Fourth International Symposium of Molecular Pathology committee to welcome all the experts and scholars from home and abroad. Thank you for attending this symposium.

It has been eight years since the First International Symposium of Molecular Pathology was held in 1998. In each symposium, there were always some outstanding pioneers from the Japanese Pathology circles, such as the former president of the Japanese Society of Pathology, the president of the Japanese Society for Lymphoreticular Tissue Research, and the president of the Japanese Society of Lung Cancer, so as many Chief committee of China Medical Association Pathological Department. They made the symposium a high－level academic communication. Meanwhile there were many officials of the Chinese People's Association for friendship with Japanese, and the Japanese Press circles and hospitals who made the symposium a high－level personal communication.

Besides the communication in molecular pathology, the symposium include the clinical pathology diagnosis discussion in purpose of enhancing the diagnosis technology.

Here, in the beautiful Urumqi, the bethel where the ancient eastern and western cultures were intercommunacated comes our symposium. The unique glamour of the Uygur Autonomous Region would sure help us to learn more about the Muslim Culture.

The China Medical Association Pathology Department, The Editorial of Chinese Journal of Pathology Kagoshima University, and Xinjiang Medical University had made outstanding contributions to this symposium. In this context, please allow me to express heartfelt thanks.

On this memorable occasion, may I wish the Fourth International Symposium of Molecular Pathology in Xinjiang much success. To everyone present this morning, I wish you happiness and good health.

Thank you very much.

Honorary Chairman of the 4th International
Symposium of Molecular Pathology
President of China Medical University
Qun Zhao(赵群)
2006.8.7

Greeting

The Fourth International Symposium of Molecular Pathology
2006.8.6－9, Urumqi, the People's Republic of China

Greeting from Kagoshima:

Ladies and Gentlemen;

I am sincerely grateful that we are able to hold the Fourth International Symposium of Molecular Pathology in Urmuqi, in conjunction with China Medical University and Xinjiang Medical University and consider it to be very significant that we have participants from both China and Japan.

I have heard that the International Symposium of Molecular Pathology has been held continuously since 1998 especially in inland China and has developed gradually. For the further development of this symposium, I am pleased to be able to cooperate officially with China Medical University in holding this fourth symposium in the very beautiful surroundings of Urumqi.

Since China Medical University and Kagoshima University concluded a cooperative relationship in 1993, we have pursued various exchange activities. I am convinced that this symposium is one of the most outstanding activities that we have organized so far between both our universities.

It is my sincere hope that this symposium will lead to the establishment of a viable network of researchers in Mainland China and Kagoshima in the field of Molecular Pathology. This will enable the development of new joint research and projects in this extremely important field.

Finally, I am certain that the results of this symposium in Urumqi will be both beneficial to the medical world and also to the continuation of future symposium.

Thank you very much.

NAGATA, Yukihiro, M.D., Ph.D
President of Kagoshima University

Greeting

Distinguished Guests, ladies and gentlemen.:

The 4th International symposium of molecular pathology is opening in the beautiful City of Urumqi. First of all I would like to express my warm welcome to my friends for your participation on behalf of the xinjiang medical university and myself. I also wish to take this opportunity to thank you all for your long－standing attention and support to Xinjiang medical university. I think that some one may first come to xinjiang. Let me first refer briefly to the beautiful xinjiang.

Xinjiang Uygur Autonomous Region is located in the northwest of China, covering an area of more than 1. 66 million square kilometers. As China's largest province, its area is equal to one—sixth of the entire territory of China. Xinjiang borders on 8 countries such as Pakistan, Russia with total boundary lines running to 5, 600 odd kilometers.

Xinjiang is a multi－ethnic area with a population of 18, 7619 million. Of the forty－seven ethnic groups, thirteen have lived here for generations.

On its northern border loom the Altay Mountains, and on the southern border lie the Rarakorum Mountains. The mammoth Tianshan Mountains in the middle part of the region cover its entire langth, dividing it into northern and southern Xinjiang. Two enormous basins, the Tarim Basin in the south, the Junggar Basin in the north, spread out from Tianshan's foothills. The Taklamakan Desert, the largest desert in China, lies in the central section of the Tarim Basin.

Xinjiang is quite rich in tremendous resources. Such mineral resources in Xinjiang as oil, natural gas, coal, copper nickel, rare metals, chromite, salt, building nonmetals, precious stones and jade enjoy evident advantages and a bright prospect; hence. Coal's prospective reserves amount to 2. 19 trillion tons, which are China' largest. Oil is the most promising energy resource in Xinjiang with quite considerable reserves.

Due to the unique geography, climate and natural resources, Xinjiang is characterized by special oasis and irrigation agriculture. With a long history of cultivation, Xinjiang, known as the "Home of Melons and Fruits" since the ancient time, produces such various crops as wheat, maize, cotton, oil－bearing plants, sugar beat, sweet melon, grape and pear.

Xinjiang has a very long history. From the Han to the Qing Dynasty, Xinjiang was known as the "Western Region". 2000 years ago, i. e. in the early years of the Han Dynasty, the Military Viceroy's Office of the western Region was set up in Xinjiang, exercising sovereignty and power on behalf of the central government.

The Xinjiang Medical University(XJMU) is located at the foot of "Carp Hill" in Northeast Urumqi. The second let me introduce to XJMU.

XJMU, formerly called Xinjiang Medical College, commenced construction in 1954 and was completed in 1956 when its first students were recruited. The construction of the medical college was one of the 156 key construction projects carried out by Soviet aid.

After 50 years of development, XJMU has achieved substantial achievements in the fields of health education, clinical treatment and research. Presently, XMU has 18 colleges, 5 affiliated(teaching) hospitals with 2 sec-

tions and 5 departments, 3 post－doctorate stations, 4 doctorate stations, 48 masters' degree stations of secondary subjects, 5 autonomous region special subjects, 1 provincial level joint Laboratory, 2 autonomous region key laboratories, 8 autonomous region level research institutes and research offices. XJMU is accredited to give Medical Doctor(MD) degrees.

XJMU's staff, teachers, and doctors have strong abilities and experience in teaching, curing and researching. The teaching faculty is comprised of 1500 people. There are more than 400 supervisors for the doctorate students and the master's students. Among these supervisors, most of the teachers have continued their studies in Europe and America, and have an increased ability to teach professional subjects to international students in English.

The five affiliated hospitals and other non－affiliated hospitals have more than a 10, 000－bed capacity among them. It is also proficient in advanced medical treatment techniques such as liver transplant, in－vitro fertilization, lung and heart transplant, kidney transplant, coronary artery bypass grafting, bone marrow transplant, PTCA(percutaneous transluminal coronary angioplasty) and other difficult operations. There are 5, 750 beds, 1, 850, 000 annual out－patient visitors, 79 000 hospitalized patients annually and 30, 000 annual operations in this hospital.

XJMU has already signed contracts with some famous universities in 17 countries such as in America: Harvard Medical International, with more than 30 domestic universities such as Beijing University, Fudan University, Zhongnan University, etc.

Since 2001, We have obtained great progress among the education of international students. Nowadays, we have more than 400 international students in our University. They are mainly from Pakistan, Qatar, Afghanistan, and Sudan.

Ladies and gentlemen, dear friends. It is our pleasure to attend this symposium. The meeting wills offer us an opportunity to exchange. We hope to build a good relationship with you forever.

The last, let us all wish, in advance, a great success to the forum! I also wish you all a pleasant stay in the beautiful Xinjiang.

Thank you all for coming!

Jinlong Ma(马金龙)
Dean of preclinical college of medicine, XJMU
Assistant president of Xinjiang Medical University
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Telephone: 0086－991－4365305
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E－mail: majinlong123@yahoo.com.cn

List of Chinese participants

Academic Part.

Prof.	Xinshan Jia(贾心善)	China Medical University
Prof.	Daorong Zhang(张道荣)	China Medical University
Asso. Prof.	Zhimin Fu(付志民)	China Medical University
Asso. Prof.	Chengyao Xie(谢成耀)	China Medical University
Lect.	Changqing. Fang(方长青)	China Medical University
Prof.	Yifu Guan(关一夫)	China Medical University
Lect.	Jiafeng Yang(杨家凤)	China Medical University
Prof.	Yan Xin(辛彦)	China Medical University
Prof.	Jialun Wang(王嘉伦)	Shenyang Medical College
Asso. Prof.	Ling Zhang(张玲)	Shenyang Medical College
Prof.	Cuifang Wang(王翠芳)	Shenyang No. 8 Hospital
Lect.	Xiaoling Li(李晓玲)	Liaoning Province Tumor Hospital
Lect.	Hongwei Liu(刘宏伟)	Liaoning Province Tumor Hospital
Prof.	Xiaofeng Yang(杨晓凤)	PLA No. 463 Hospital
Asso. Prof.	Changlian Lv(吕昌莲)	Harbin Medical University
Prof.	Daling Zhu(朱大岭)	Harbin Medical University
Miss.	Hong Wu(吴红)	Harbin Medical University
Prof.	Yuanyi Xu(徐远义)	Ningxia Medical College
Prof.	Yunning Huang(黄允宁)	Ningxia People's Hospital
Prof.	Jinlong Ma(马金龙)	Xinjiang Medical university
Miss.	Li Gao(高丽)	Xinjiang Medical University
Miss.	Haiping Zhang(张海萍)	Xiamen No. 1 Hospital
Prof.	Dongping Tian(田东萍)	Shantou University
Mr.	Xiuhuai Cao(曹修淮)	Fuoshan People's Hospital
Prof.	Caili Han(韩彩丽)	Hebei Medical University
Miss.	Jinying Wei(韦金英)	Hebei Medical University
Prof.	Shousong Chen(陈寿松)	Guangzhou Military Area Wuhan Hospital
Mr.	Guoping Zhong(钟国平)	Ningbo People's Hospital
Miss.	Jihong Zhao(赵继红)	Dongwan People's Hospital
Prof.	Weixia Zhong(仲伟霞)	Shandong Tumor Hospital
Mr.	Gang Chen(陈刚)	Shanghai Jiaotong University
Mr.	Yong Liu(刘勇)	Jiangxi People's Hospital
Miss	Xiaoting Li(李晓婷)	Beijing University

List of Japanese participants

Academic part

Prof.	Hiroshi Nagura(名仓宏)	Tohoku Univ.
Prof.	Tsutsumi Yutaka(堤宽)	Fujita Health Univ.
Prof.	Koki Inai(井内康辉)	Hilocima Univ.
Prof.	Kiyoshi Takahashi(高桥洁)	Kumamoto Univ.
Prof.	Kazuhisa Hasui(莲井和久)	Kagoshima Univ.
Prof.	Eiichi Sato(佐藤荣一)	Kagoshima Univ.
Mr.	Taruhisa Okumura(奥村晃久)	Kagoshima people's Hosp.

Social part

Prof.	Takashi Hayata(早田隆)	Kagoshima Woman Univ.
Pres.	Umashi Hidaka(日高旺)	Kagoshima TV Station
Pres.	Yoshitaka Nozoe(野添良隆)	Nozoe Dental Clinic
Pres.	Kosei Hirayama(平山申清)	Hirayama Dental Clinic

Associating persons

Mrs.	Yuriko Sato(佐藤百合子)
Mrs.	Hideko Hirayama(平山秀子)
Mr.	Kaori Hidaka(日高熏)
Mrs.	Hisak Hidaka(日高久子)
Mrs.	Hisako Nagura(名仓寿子)
Mrs.	Kumiko Hayata(早田久美子)
Mrs.	Kazuki Takahashi(高桥和子)

Scientific Program

2006.8.7

10:00 Opening

Greeting

Chairman: Xinshan Jia(贾心善) China Medical University

Kazuhisa Hasui(莲井和久) Kagoshima University

Jinlong Ma(马金龙) Xinjiang Medical University

Photography of the symposium

10:30 SPECIAL LECTURE 1 Chairman: Yan Xin(辛彦)

China Medical University

Kouki Inai(井内康辉)

Hiroshima University

Mesothelioma in Japan with special reference of accurate pathological diagnosis

11:00 SPECIAL LECTURE 2 Chairman: Eiichi Sato(佐藤荣一)

Kagoshima University

Min Su(苏敏)

Shantou University

Esophageal & cardiac cancer in Chaoshan region of China

11:30 LECTURE 1 Chairman: Kiyoshi Takahashi(高桥洁)

Kumamoto University

Caili Han(韩彩丽)

Hebei Medical University

Study on the function of P38MAPK in gastric carcinoma cell line and its relationship with COX－2

11:45 LECTURE 2 Chairman: Gang Chen(陈岗)

Shanghai Jiaotong University

Kazuhisa Hasui(莲井和久)

Kagoshima University

Immunohistochemical analysis of programmed cell death in synovial tissue with rhematoid arthritis

12:00 LECTURE 3 Chairman: H. Nagura(名仓宏)

Sendai Collage

Yujie Zhao(赵雨杰)

China Medical Univer

sityResearch on Cytochip Applying to Immunophenotyping for Leukemia

12:15 LECTURE 4 Chairman: Jinlong Ma(马金龙)

Xinjiang Medical University

H. Nagura(名仓宏)

Sendai Collage

Palatine tonsils in IgA nephropathy. － A role of the pathogenesis

12:30 LECTURE 5 Chairman: Kazuhisa Hasui(莲井和久)

Kagoshima University

Weixia Zhong(仲伟霞)

Shandong Tumor Hospital

The Clinicopathology and Immunohistochemical Features in Solid－pseudopapill－ary Neoplasm of Pancreas.

12:45 LECTURE 6 Chairman: Daorong Zhang(张道荣)
China Medical University

DaLing Zhu(朱大岭)
Harbin Medical University
Effects of 15－HETE and ERK1/2 on Pulmonary Artery Constriction in Chronic Hypoxic Rats

13:00 LECTURE 7 Chairman: Takashi Hayata(早田隆)
Kagoshima Woman University

Kaori Hidaka(日高薰)
National Museum of Japanese History
"Woqi": Cultural Exchange of Lacquer between China and Japan

13:15 REST

16:00 SPECIAL LECTURE 3 Chairman: Yuanyi Xu(徐远义)
Ningxia Medical College

Yutaka Tsutsumi(堤宽)
Fujita Health University School of Medicine
Immunohistochemical demonstration of apoptosis in paraffin sections of colon cancers, with special reference to cells expressing both apoptosis and cell－proliferation markers.

16:30 LECTURE 8 Chairman: Yutaka Tsutsumi(堤宽)
Fujita Health University School of Medicine

Jinlong Ma(马金龙)
Xinjiang Medical University
Quantitative Study of Cell Proliferation and Apoptosis in the Development of Neural Tube Defects Caused by Hyperthermia.

16:45 LECTURE 9 Chairman: Jiehua He(何洁华)
Zhongshan University

Yuanyi Xu(徐远义)
Ningxia Medical College
Study of the Enhanced Anti－tumoral Immunefunction Human Perironeal Macrophages by Polyresistin.

17:00 LECTURE 10 Chairman: Yifu Guan(关一夫)
China Medical University

Teruhisa Okumura(奥村晃久)
Kagoshima people's Hospital
An adult case of Epstein－Barr virus(EBV)－associated T/NK－cell lymphoproliferative disorder, A report of an autopsied case

17:15 LECTURE 11 Chairman: Kazuhisa Hasui(莲井和久)
Kagoshima University

Dongping Tian(田东萍)
Shantou University
Neural precursor cell Differentiation and Protein Expression in Hippocampus of Prolonged Selenium Deficiency rats

17:30 LECTURE 12 Chairman: Teruhisa Okumura(奥村晃久)
Kagoshima people's Hospital

Xiaofeng Yang(杨晓凤)
PLA No.463 Hospital
Transplantation of autologous peripheral blood stem cells for the treatment of limb ischemic disorder.

17:45 REST

18:00 Clinical pathology Conference

President:

Yutaka Tsutsumi(堤宽) Fujita Health University School of Medicine

Jiehua He(何洁华) Zhongshan University

Shousong Chen(陈寿松) Wuhan General Hospital, Guangzhou Military Region

Daorong Zhang(张道荣) China Medical University

Xinshan Jia(贾心善) China Medical University

19:00 Welcome Party

2006.8.8

10:00 LECTURE 13 Chairman: Jihong Zhao(赵继红)
Dongwan People's Hospital

Ling Zhang(张玲)
Shenyang Medical College
The inhibitory effects of angiostatin on human endothelial cells induced by tumor

10:15 LECTURE 14 Chairman: Guoping Zhong(钟国平)
Ningbo Yinzhou People's Hospital

Chengyao Xie(谢成耀)
China Medical University
The analysis of pathologic diagnosis in 4312 rapid frozen histological sections

10:30 LECTURE 15 Chairman: Changliang Lv(吕昌莲)
Harbin Medical University

Jujiu Qiao(乔菊九)
China Medical University
Pin1 overexpression in Squamous Cell Carcinoma and Adenocarcinoma of Lung and Its Correlation with CyclinD1

10:45 LECTURE 16 Chairman: Hong Wu(吴红)
Harbin Medical University

Wei Cao(曹薇)
China Medical University
The Expression and Significance of Pin1 and β－catenin in Squamous Cell Carcinoma and Adenocarcinoma of Lung

11:00 LECTURE 17 Chairman: Haiping Zhang(张海萍)
Xianmen No. 1 Hospital

Yanchun Han(韩艳春)
China Medical University
Correlation between expression of p38MAPK signaling molecule and uPA in breast cancer

11:15 LECTURE 18 Chairman: Xiuhuai Cao(曹修淮)
Foshan Nanhai People's Hospital

Ying Han(韩莹)
China Medical University
The relationship of Thymosin β15 with Differentiation and Metastasis of Prostate Cancer

11:30 LECTURE 19 Chairman: Cuifang Wang(王翠芳)
Shenyang No. 8 Hospital

Jun Wang(王君)
China Medical University
The Role of Insulin－like Growth Factor－2(IGF2) Gene DMRS in TCDD－ INDUCED Malformation

11:45 LECTURE 20 Chairman:Hong Zhang(张弘)
China Medical University

Xiujuan Cui(耿聆)
China Medical University
Changes of Ultramicro－appearance of Tracheal Stem Cells During Rat Tracheal Regeneration

12:00 LECTURE 21 Chairman:Changqing Fang(方长青)
China Medical University

Linlin Wang(王琳琳)
China Medical University
Changes in Wnt/－catenin Signaling Pathway During Regulated Proliferation and Differentiation of Tracheal Stem Cells in Rat Tracheal Regeneration

12:15 LECTURE 22 Chairman:Zhimin Fu(傅志民)
China Medical University

Yang Qu(曲杨)
China Medical University
Dynamic changes of Histone deacetylase 1 During Regulated Growth of Bronchial Stem Cells in human bronchial Regeneration

12:30 LECTURE 23 Chairman:Xianghong Yang(杨向红)
China Medical University

Yanmei Zhu(朱延美)
The Forth Affiliated Hospital, China Medical University
Expression and Significance of Scavenger Receptor A in stroma of nasal NK/T cell lymphoma

12:45 LECTURE 24 Chairman:Jialun Wang(王嘉伦)
Shenyang Medical College

Weili Lv(吕威力)
China Medical University
Expression of Wnt－1 in Rat Tracheal Stem Cell during the Early Proliferation and Differentiation

13:00 LECTURE 25 Chairman:Yunning Huang(黄允宁)
Ningxia People's Hospital

Yalan Liu(刘亚岚)
China Medical University
Expression of aquaporin－3(AQP3) and its significance in normal and neoplastic lung tissues

16:00 LECTURE 26 Chairman:Haiping Zhang(张海萍)
Xiamen No.1 Hospital

Bo Yang1(杨波)
1)Shen Yang General Hospital in Shen Yang Army
2)China Medical University
Detection and significance of β－Glucuronidase mRNA in the tissue of liver and kidney of human being

16:15 LECTURE 27 Chairman:Songsong Chen(陈寿松)
Guangzhou Military Area Wuhan Hospita

Bo Yang[1](杨波)
1)Shen Yang General Hospital in Shen Yang Army

2)China Medical University

Expression and significance of β－Glucunidase mRNA in different diffentiation tissue of hepatocellular carcinoma

16:30 LECTURE 28 Chairman:Caili Han(韩彩丽)
Hebei University

Hongtao Xu(徐洪涛)

China Medical University

Both Abnormal －Catenin and Reduced Axin Expression Are Associated with Poor Differentiation and Progression in Non－Small Cell Lung Cance

16:45 LECTURE 29 Chairman:Xuguang Wang(王旭光)
Shenyang Medical College

Shundong Dai(戴顺东)

China Medical University

Effect of HSP90 on apoptosis of NIH3T3 cells induced by TNF－α/CHX

17:00 LECTURE 30 Chairman:Cuifang Wang(王翠芳)
Shenyang No.8 Hospital

Wenbo Dai(代文博)

China Medical University

Expression of TRAF4 in Breast Carcinoma

17:15 LECTURE 31 Chairman:Dongping Tian(田东萍)
Shantou University

Mei Wu(吴玫)

China Medical University

Expression and Significance of PRL－3 in Human Non－small Cell Lung Cancer

17:30 LECTURE 32 Chairman:Yifu Guan(关一夫)
China Medical University

Shuyu Li(李姝玉)

China Medical University

Expression of Heparanase Protein in Human Non－small Cell Lung Cancer

17:45 LECTURE 33 Chairman:Xiaoling Li(李晓玲)
Liaoning Province Tumor Hospital

Changqing Fang(方长青)

China Medical University

Expression and significance of Rho－GDIa in lung cancer and lung cancer cell lines

18:00 LECTURE 34 Chairman:Hongwei Liu(刘宏伟)
Liaoning Province Tumor Hospital

Zhijuan Zhao(赵志娟)

China Medical University

The Expression of FAP in Breast Cancer Stroma and It's Relationship between FAP and MVD

18:15 LECTURE 35 Chairman:Enhua Wang(王恩华)
China Medical University

Xianxu Zeng(曾宪旭)

China Medical University

Expression and Significance of p－Bad、p－Erk、p－Akt in Breast Cancer Progression

18:30 LECTURE 36 Chairman:Yan Xin(辛彦)
China Medical University

Jingxian Xu(徐静娴)
Osaka University Graduate School of Medicine
Analysis of p53 and bak gene mutations in lymphoproliferative disorders developing in rheumatoid arthritis

18:45 LECTURE 37 Chairman:Jingxian Xu(徐静娴)
No.4 Military Med. University

Yuping Xiao(肖玉萍)
China Medical University
The Relationship of Survivin Protein Expression with Carcinogenesis and Progression of Gastric Carcinoma - A Study by Tissue - microarray

19:00 DINNER

2006.8.9

10:00 LECTURE 38 Chairman:Eichi Sato(佐藤荣一)
Kagoshima University

Yanning Wang(王艳宁)
Shenyang Medical College
Study on expression of PSMA and CD44v6 in human prostate cancer

10:30 LECTURE 39 Chairman:Kiyoshi Takahashi(高桥洁)
Kumamoto University

Xuguang Wang(王旭光)
Shenyang Medical College
The Expression and Significance of CDX2 in intestinal metaplasia of gastric mucosa

10:45 LECTURE 40 Chairman:H. Nagura(名仓宏)
Tohoku University

Jia Wang(王嘉)
Kagoshima University
An immunohistochemical analysis of pathogenicity of Helicobacter pylori on human gastric epithelia in the biopsy specimens diagnosed as Group - I(Non - neoplastic and non - atypical regenerative lesions)

11:00 LECTURE 41 Chairman:Jialun Wang(王嘉伦)
Shenyang Medical College

Cuifang Wang(王翠芳)
Shenyang Medical College
Expression of HBME - 1 and RET in benign and malignant thyroid phthological changes

11:15 LECTURE 42 Chairman:Kazuhisa Hasui(莲井和久)
Kagoshima University

Hongwei Sun(孙宏伟)
Shenyang Tumor Hospital
Clinicopathological Signaficance of the Expression of Tumor Suppresser GENE pten and cell apoptosis key factor Caspase - 3 in Primary Malignant Gastric Lymphoma.

12:00 REST

16:00 Closing

Chairman:Xinshan Jia(贾心善) China Medical University
Jinlong Ma(马金龙) Xinjiang Medical University

CATALOG

Mesothelioma in Japan with special reference of accurate pathological diagnosis

Kouki Inai

Hiroshima University

Mesothelioma has been increasing in Japan related to the huge amount of use of asbestos mainly in the period between the 1960's and 1990's. Most of mesothelioma have latent period of 30 – 40 years from the initial exposure to asbestos, and therefore, the number of death by mesothelioma has increased recently and reached to 953 in 2004, however, it is supposed that the total number of death by mesothelioma will reach to 50,000 until 2030. So far, the national labor law in Japan has covered the compensation for the victims only by occupational exposure, and in addition, the new national compensation system has established in March, 2006, because the victims under the common living life were identified last year.

The clinical diagnosis of mesothelioma is dependent on imaging including x – ray, CT or MRI, because the serum markers are not reliable at this time and therefore, the definite diagnosis by pathological examination has been required. However, there are many histological varieties in mesothelioma and the diagnostic criteria of mesothelioma is unclear, and infact, the definite pathological diagnosis is not so easy. According to our investigations, the pathological diagnosis in Japan is not correct in 10 – 15% of cases.

From the facts above mentioned, we tried to make the histological criteria based on the immunohistochemical study to improve accuracy of the diagnosis of mesothelioma. Eighty – eight cases of epithelioid mesothelioma were collected from many institutions in Japan, and as the control, 51 cases of pulmonary adenocarcinoma were selected from the file of our department. On the other hand, 41 cases of sarcomatoid mesothelioma were collected by the same manner of epithelioid mesothelioma. As the control, 47 cases of various types of sarcoma were selected from our surgical file. In these cases, the representative tissue blocks were used for immunohistochemical stainings by SAB method.

As the results, the immunohistochemical findings in epithelioid mesothelioma are summarized in Table 1. On the basis of the sensitivity and specificity of each of antibodies, the combination of calretinin, WT1 or thrombomodulin as positive marker and CEA as negative marker is useful for the correct diagnosis. The summary in sarcomatoid mesothelioma is shown in Table 2, and on the basis of the sensitivity and specificity, the combination of CAM5.2 and AE1/AE3 as positive markers is useful. In addition, specific positive markers for each of sarcomas, such as α – SMA or h – caldesmon for leiomyosarcoma, MyoD1 or myoglobin for rhabdomyosarcoma are useful for the diagnosis.

It is supposed, that mesothelioma in China will show serious problems in the future as well as in Japan, because the amount of asbestos – use is increasing in China even now. It is expected that our experience is useful in China.

Table 1 Comparison of immunohistochemical findings between epithelioid mesot and pulm onary adenocarcinoma

Antibodines	Positive Cases(%)		p – value
	Epithelioid mesothelima	Pulmonary adenocareinoma	
Calretinin	83/87(95.4)	17/51(33.3)	<0.001
WT1	82/84(97.6)	8/51(15.7)	<0.001
AE1/AE3	88/88(100)	51/51(100)	–
CAM5.2	84/87(96.6)	51/51(100)	0.18
Cytokeratin 5/6	54/78(69.2)	21/51(41.2)	0.0016
Vimentin	80/88(90.9)	24/51(47.1)	<0.001
EMA	84/88(95.5)	51/51(100)	0.12
Thrombom odulin	57/84(67.9)	10/51(19.6)	<0.001
Measothlin	64/83(77.1)	36/51(68.6)	0.40
CEA	6/86(7.0)	50/51(98.0)	<0.001
CA19 – 9	7/40(17.5)	37/51(72.5)	<0.001
CA125	34/40(85)	4/51(8064)	0.57

Table 2 Comparison of immunohistochemical findings between sarcomatoidmes and various types of sarcoma

Antibodines	Positive Cases(%)		p − value
	Sarcomatoid mesothelima	Various types of sarcoma	
Calretinin	39/44(88.6)	14/47(29.8)	<0.001
WT1	39/44(88.6)	20/47(42.6)	<0.001
AE1/AE3	38/44(86.4)	2/47(4.3)	<0.001
CAM5.2	41/44(93.2)	3/47(6.4)	<0.001
EMA	22/44(50)	5/47(10.6)	0.001
Desmin	5/44(11.4)	25/47(53.2)	<0.001
α − SMA	24/42(57.1)	1747(59.6)	0.81
S − 100p	18/41(43.9)	17/47(36.2)	0.46
CD34	2/37(5.4)	20/47(42.6)	0.0001
KP − 1	27/41(65.9)	38/47(80.9)	0.11

Esophageal & cardiac cancer in Chaoshan region of China

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Question 1 What is incidence trend of esophageal /cardiac cancer in Chaoshan Nowadays?

Epidemiological investigating of the morbidity rate of esophageal cancer of Nanao island in Chaoshan region from 1995 to 2004

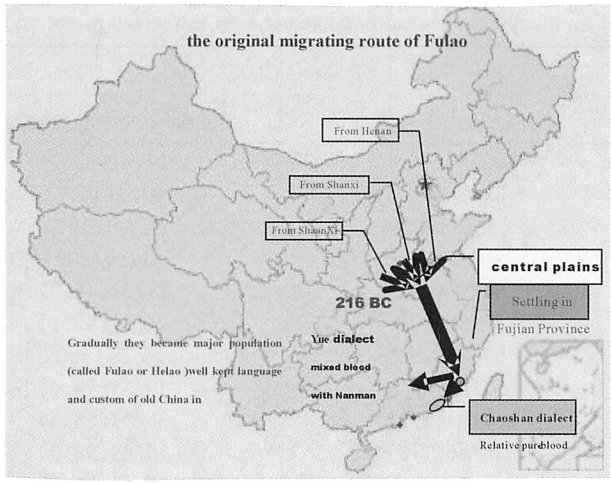
(1)Cancer register system established in Nanao Island

1)Cancer Registry System in Nanao Island based at the Department of onco − pathology Shantou University Medical College cooperated with board of health in Nanao island.

2)Every year the team of the Department of onco − pathology Shantou University Medical College went to Nan' ao island and called at new patients' houses checking the incidence data of the last year through random sampling survey.

Question 2 The origin of Chaoshan high risk population?

About three thousands years ago, the native of Chaoshan belonged to Nanman people who were branch of Baiyue people mainly living in southern of old China.



Mitochondrial DNA and Y chromosome evidence: Affinities and consanguineous relationship between southern and and northerly esophageal cancer high risk population in China

Collaborated with Prof. L Jin's group. Fudan University

Conclusion

There are closer genetic relationship among Chaoshan, Fujian, Henan Taihang mountain EC high – risk populations, implicating a common ancestry.

Study on the function of P38MAPK in gastric carcinoma cell line and its relationship with COX – 2

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Objective: The clinical epidemiological investigation show that non – steroidal anti – inflammatory drugs (NSAIDs)can reduce the incidence rate of digestive tract carcinoma. The mechanism of the antineoplastic effect of NSAIDs is tightly related with COX – 2 and P38MAPK.

Methods: SGC7901 cell line are divided into four groups at random in vito: CON: control group with no any treatment; NS: group treated with 70 umol/L NS398 for 48h; SB: group treated with 5umol/L SB203580 for 48h; SBNS: group pretreated with 5umol/L SB203580 for 30mins, then treated with 70 umol/L NS398 for 48h. Use FCM to detect apoptosis and proliferation and Western blot to detect the protein expression of COX – 2 and P38 of the cells in every group.

Results: The apoptosis ratio has an obvious distinction from CON group($P<0.05$), SBNS group is higher than in NS group and SB group($P<0.05$). As for influence on cell cycle, drugs in every group can reduce percentage of cells on S phase and the percentage of G0/G1 phase is increased, but only result of SBNS group has statistical significance($P<0.01$). The protein expression level of COX – 2 in every treated group is reduced compared with that of CON group, ($P<0.05$), in SBNS group is lower than in NS group and SB group obviuosly($P<0.05$), and that both inhibitor of COX – 2 and P38 can reduce expression of COX – 2 protein. The protein expression of P – P38 in SB group is lower than in CON group($P<0.05$). In NS group and SBNS group it is higher compared with CON group($P<0.01$). The protein expression of P – P38 in SBNS group goes between NS group and SB group($P>0.05$).

Conclusions: P38MAPK is at the upstream of COX – 2 and can upregulate its expression, COX – 2 may have a negative feedback function on P38MAPK. The final effect of activated P38MAPK(p – P38MAPK)in SGC7901 is to promote the development of tumour. P38 upregulating the expression of COX – 2 and activated – P38 inducing the apoptosis of tumour cell may go through two different pathways respectively. NS398 does not induce the apoptosis of tumour cells through activating P38 signal pathway.

Immunohistochemical analysis of programmed cell death in synovial tissue with rhematoid arthritis

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Histogenesis of the synovial tissue in rheumatoid arthritis(RA)was investigated by means of antigen retrieval – supersensitive immunostaining of beclin – 1 for autophagy together with the antigen retrieval – ordinary immunostaining of cleaved caspase – 3 for apoptosis and CD204 for macrophage scavenger receptor(MSR). Paraffin sections from 6 cases of the synovial tissue with fibrinoid degeneration pathognomonic for RA were used. Synovial lining cells fell in autophagic cell death at the surface and were desquamated into the lumen when the syn-

ovial lining cells expressed CD204 strongly.

Hyperplastic synovial cells also fell in autophagic cells death at the deep portion where the CD204 – positive cells other than the synovial cells were concentrated, when the other synovial cells expressed beclin – 1 for autophagy maintaining their long survival. Massive fibrinoid degenerated tissue was densely labeled by beclin – 1, indicating that the fibrinoid degeneration was massive autophagic cell death of the synovial tissue in RA. Consequently, the programmed cell death in the synovial cells was autophagic cell death. In the chronic phase of the synovial RA, acceleration of autophagic cell death modified histogenesis of the RA – synovial tissue, activating synovial cells and macrophages. The pathognomonic fibrinoid degeneration was massive autophagic cell death of the synovial tissue although the cause was unknown.

Research on Cytochip Applying to Immunophenotyping for Leukemia

Yujie Zhao, Hua Yang

Center of Biochip, China Medical University

Leukemia is one of the common malignant neoplasms. Before the1980s diagnosis of Leukemia mainly based on morphology, Monoclonal antibody application for the typing of leukemia has opened a new way. Immunophenotyping for Leukemia overcomes the shortcoming of FAB classification(morphology), accuracy for distinguishing acute leukemia of myeloid and lymphoid origin. FAB classify provides more than 60% and Immunophenotyping provides 90% accuracy.

Now clinical leukemia Immunophenotyping mainly in FAB classification guided not clear diagnosis, conduct 1～2 antibody immunohistochemistry testing to bone marrow slides. It is difficult in its clinical application by the specimen volume; price restrictions. Flow cytometric analysis of leukemia with panels of monoclonal antibodies now provides 90% accuracy for immunophenotyping. But their equipment is expensive and labor – intension, requiring fluorescently labeled and allowing concurrent analysis for a limited number of CD antigens, usually three to four. It is difficult for widespread application.

This experiment constructs a cytochip applying to immunophenotyping of leukemia. We chose an arm element that has a strong ability to immobilize protein, through antigen – antibody reaction to capture cells, and selection of a group of suitable antibodies to form microarray. Using a cytochip to immunophenotype leukemia patients' vein blood specimens provides a simple clinical Immunophenotyping of leukemia diagnostic tools.

Methods: 1. Slide decoration: The effects of different chemical reagent on slide were compared and slide immobilization efficiency was detected by fluorescence protein. We chose a chemical reagent that has a strong ability to immobilize protein; 2. Cytochip construction: Monoclonal antibodies that are applied to immunophenotyping of leukemia were fixed slide to form cytochip; 3. Immunophenotyping of leukemia by cytochip: A suspension of mononuclear cells is applied to the cell array and cells only bind to antibody dots for which they express the corresponding CD antigen. The cytochip that had captured cells were dyed with Wright's – Giemsa. Results: 1. The glasses slides modified with aldehyde have the highest efficiencies of protein immobilization and activities of the proteins; 2. Each point of the glasses modified with glutaraldehyde has same efficiency of protein immobilization; 3. The cells dots were easy to be observed by the scanner or the common optics microscope. The bound cells were special according to corresponding antibody detected by fluorescently labeled antibodies and morphology; 4. 7 cases were diagnosed ALL. 2 cases T – ALL expressed CD2, CD5, CD7, HLA – DR; 5 cases B – ALL expressed CD19, CD10, CD11, CD37; 5. 23 cases were diagnosed AML. The incidence of HLA – DR、CD33、CD14、CD34 expression was respective 69.6%、69.6%、30.4%、21.7%. M3 didn't express HLA – DR, CD14 was only expressed in M4、M5. Conclusion: The arm element chose has higher efficiencies of protein immobilization and activities of the proteins. Monoclonal antibodies were spotted on the slide modified with aldehyde to make cytochip. The results of Immunophenotyping of leukemia by cytochip are consistent with relevant paper. The results can be used as further support and complementarity to clinical FAB classifies. The cell array in our lab has a

relatively simple technique route, easy to operate and repeat. It provides a rapid and high－throughput diagnostic tool for clinical Immunophenotyping of leukemia.

Palatine tonsils in IgA nephropathy. －A role of the pathogenesis

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The upper aerodigestive tract possesses lymphoid tissues, the palatine tonsil and adenoid, which have a characteristic lymphoid architecture consisting of primary and secondary follicles surrounded by extrafollicular regions and reticular epithelia. They play the role as parts of an integrated mucosal immune system.

IgA nephropathy(IgAN)is defined as a form of glomerulonephritis in which IgA, particularly J－chain－linked IgA1 in an immune complex form dominate or codominate within the glomular deposits. Moreover, the body's synthesis of IgA exceeds that of all other immunoglobulin classes combined. That is, we consider a view of IgAN as a form of immune complex diseases which mucosally derived antigens elicit mucosal antibody synthesis to generate pathogenic immune complexes. Clinically upper respiratory infection and inflammation including tonsillitis often precede IgAN, and tonsillectomy is effective for the treatment of this disease. In the present study, palatine tonsils removed from IgAN patients with or without high dose of steroid therapy were immunohistomically analyzed, and compared with those from patients with chronic recurrent tonsillitis.

Palatine tonsils from IgAN patients were rich in germinal centers but rather small, and their size and distribution were irregular and the outline of follicular areas was hazy. The interfollicular T cell area was much broader and contained more immunoblastic cells of a B cell lineage and B cells than those from chronic recurrent tonsillitis. The HLA－DR^+ reticulated sponge－like epithelial layer of tonsillar crypts contained many B cells(surface $CD20^+$ IgM^+ $B7^+$), T cells($CD4^+$ $CD80^+$ $CD86^+$)and plasma cells(IgA^+ or IgG^+), macrophages, and also interdigitating dendritic cells(S－100^+). By high dose steroid therapy, germinal centers became smaller or disappeared, and B cells and plasma cells almost disappeared in the crypt epithelial layer. From this present study, we strongly favor the view that the development of IgAN to be a consequence of an altered and dysregulated mucosal B cell responses, and the tonsil seems to be a unique organ causing initial and/or progressive events to generate glomerular deposited immune complexes in IgAN. Thus tonsillectomy may be a worthwhile procedure in the treatment of IgAN.

The Clinicopathology and Immunohistochemical Features in Solid－pseudopapill－ary Neoplasm of Pancreas.

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Objective: To study the clinical pathological and immunohistochemical features, histogenesis of solid－pseudopapillary neoplasm of pancreas as well as its relation with sex hormone receptors.

Methods: Eighteen solid－pseudopapillary neoplasms of pancreas were studied using histological(HE)and immunohistochemical(SP)methods.

Results: Eighteen cases(female 17, male 1)were 13－41 years in age with a mean of 22.7years. The chief complaints were abdominal pain and palpable mass. 15 cases were followed－up from 10－102 months. 13 of 15 cases were alive postoperatively. 2 patients died of the disease after 12 and 25 months respectively after palliative operation for tumor. Most tumors were encapsulated with solid and cystic areas. Histological features include pseudopapillary structures with fibrovascular cores. Immunohistologically, the tumors were positive for a－1－AT(15 cases), vimentin(12cases), synaptophysin(8cases), CgA(3cases), CK and insulin(2cases), glucagon and S－100 (1 case), PR(14 cases), ER(1 case), pS2(6 cases), PCNA(9 cases), Ki－67(8 cases), but negative for CEA and

gastrin.

Conclusion: Solid－pseudopapillary neoplasm of pancreas, a distinct neoplasm of low－grade malignancy in young women, expresses both exocrine as well as endocrine differentiation. The tumor closely connects with sex hormone receptors.

Effects of 15－HETE and ERK1/2 on Pulmonary Artery Constriction in Chronic Hypoxic Rats

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This work was supported by National Natural Science Foundation of China(30370578). The aim of the present research was to investigate whether the extracellular signal regulated kinase－1/2(ERK1/2)pathway was involved in 15－hydroxyeicosatetraenoic acid(15－HETE)－induced chronic hypoxic pulmonary artery(PA)constriction and whether ERK1/2 activity was influenced by 15－HETE, for clarifying the mechanism of hypoxic pulmonary vasoconstriction(HPV). Rats were placed in hypoxic box with fractional inspired oxygen(FiO2)0.12 for 9 days to make hypoxic models, while those lived in FiO_2 0.21 as normal controls. Heart and lungs were taken out from chest and PA 1－1.5 mm in diameter were isolated and cut into rings with 3 mm long for tension studies in organ baths. The ring tensions before and after adding 15－HETE were compared. Influences of ERK1/2 upstream kinase inhibitor U0126 as well as endothelium integrity on 15－HETE－induced HPV was observed. Expression and activity of ERK1/2 in cultured rat pulmonary artery smooth muscle cells(PASMCs)treated with 15－HETE for different times and concentrations were examined by Western blot. 15－HETE significantly constricted PA rings in hypoxic rats, and the response in the hypoxic rings were significantly greater than that in normoxic ones($P<0.05$). U0126 significantly reduced vasoconstriction which was induced by 15－HETE both in endothelium－intact and －denuded rings (both were $P<0.05$). Western blot results showed 15－HETE enhanced activity of ERK1/2 in PASMCs, increasing with concentration and decreasing with time. 15－HETE upregulates activity of ERK1/2 in PASMCs of rats. The Activation of ERK1/2 is an important step in 15－HETE －induced HPV in rats.

"Woqi": Cultural Exchange of Lacquer between China and Japan

Kaori HIDAKA

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We cannot think of Japanese lacquer work overlooking the Chinese influence upon it during the long course of history down to the present time. There are so many extant lacquer pieces in the Shoso－in Treasure House of Todai－ji Temple that indicate the close relationship between Japanese lacquer work and that of China. Japanese craft developed the national style modeled after the Tang dynasty art that was actively absorbed at the time.

Yet it is also true that lacquer work of Japan occasionally influenced that of China. In this lecture I introduce another side of the exchange between China and Japan through the fact that the maki－e ware made in Japan came to be loved by people in China, and to be imitated.

Maki－e is a unique technique to Japan to make decoration over the lacquered surface with sprinkled gold powder, using the adhesiveness of the lacquer sap. Lacquer ware in maki－e decoration considered to be specialty of Japan and has been brought to China as giving goods since at least 10th century. These pieces, called "woqi (Japanese lacquer in Chinese)", soon became to receive great admiration by Chinese people and until the 16th century found their way as furniture, boxes, and writing utensils in the scholar's studio.

It is said producing method of maki－e ware was transmitted from Japan by the craftsman named Yang who was sent to Japan to acquire the technique around Xuande Reign(1426－35)in the Ming dynasty. His grand-

child, Yanghyun learnt and has improved this method and begun to make the imitation of maki－e lacquer, which was called "yangwoqi".

In the imperial court of the Qing dynasty, the Japanese maki－e lacquer and the imitation of maki－e lacquer, played an important role. At that time they came to call both of them "yangqi(foreign lacquer)" instead of "woqi". The emperors collected the Japanese lacquer to use as curio cabinets or seal containers. The interior of the buildings in the court were filled with a lot of imitation yangqi furniture. Emperor Yongzhen(1723－35)was especially interested in such lacquer ware to make special request for the lacquer product made in the Palace Workshops(Zaobanchu). We can confirm this by the painting depicting the rooms in the Qing court and the surving Imperial lacquer collection in the Palace Museum in Beijing and Taipei.

There are distinct differences in style and technique between Japanese maki－e lacquer and Chinese imitation(It is general to call the technique of it " miaojin " now.)when we examine the objects. It is possible to say that admiring and imitating the Japanese maki－e lacquer brought a new extension to the history of the lacquer craft of China.

Immunohistochemical demonstration of apoptosis in paraffin sections of colon cancers, with special reference to cells expressing both apoptosis and cell－proliferation markers.

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As reported previously(Tsutsumi Y, Kamoshida S. Pitfalls and caveats in histochemically demonstrating apoptosis. Acta Histochem. Cytochem. 36:271－280, 2003), heat－induced epitope retrieval－assisted immunostaining for intracellular proteins cleaved and activated by caspases, including cleaved caspases 3, 6, 8 and 9 and cleaved cytokeratin 18, is technically stable and reproducible, in order to localize apoptotic cells in routinely fixed archival paraffin sections.

In the present study, we evaluated 1)comparative expression of cleaved caspases 3, 6, 8 and 9, and 2)simultaneous expression of both apoptosis and cell－proliferation markers by a double immunostaining technique. Cleaved caspase 3 should be a universal marker of apoptosis. Caspase 6, located in the downstream of caspase 3, mediates the cleavage of cytokeratin 18. Cleaved caspases 8 is a specific marker of apoptosis in the death receptor pathway, while cleaved caspase 9 represents apoptosis in the mitochondrial pathway. By double labeling, the nuclei of MIB－1－positive proliferative cells were stained black with NBT/BCIP, while the cytoplasm of cleaved caspase 3－positive apoptotic cells was stained red with fuchsin dye. Empirically, surgical specimens of colonic cancer after chemotherapy showed higher numbers of such double－labeled cells. Nude mice－xenotransplanted human colon cancer cells(Co－3 and COL－1)were treated with 5－fluorouracil(5－FU)derivatives for 1 to 14 days, and the tumors fixed in formalin and embedded in paraffin were subjected to immunohistochemical analysis. Fourteen days after chemotherapy, the tumors regressed to 1/3 to 3/4 of their original volumes.

Both of the colon cancer cell lines expressed cleaved caspases 3, 6 and 8 but not 9, suggesting that apoptosis in human colon cancers mainly depends upon the death receptor pathway. The number of double－labeled cells was clearly correlated with the number of cleaved caspase 3－positive apoptotic cells, and exhibited a peak 1 to 4 days after the 5－FU treatment, when the MIB－1－positive proliferative cells decreased inversely. These immunohistochemical findings indicate that 5－FU provokes apoptosis in colon cancer cells in a proliferative cycle.

Quantitative study of cell proliferation and apoptosis in the development of neural tube defects caused by hyperthermia

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On the animal experiment model with neural tube defects caused by hyperthermia, the nuclear fast red and crystal violet staining method was used to quantitatively observe the cell proliferation and apoptosis in the embryonic neural epithelium and the mesenchyme aroud neural tube. The results showed that the mitotic index of the neural epithellium and the mesenchyme around neural tube in the experimental groups was decreased, the apoptotic index incresed compared with the control groups at 8 and 16 hours after maternal hyperthermia, and hypethermia induced cell death in the lateral sides of head was always associated with the zones of the programmed cell death(PCD)seen in the control embryos. It indicated that hyperthermia may inhibit proliferation of neuroepithelium and the mesenchyme around neural tube, and induce excessive cell death in regions of PCD. It may be an important way by which hyperthermia causes neural tube defects.

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Study of the enhanced anti－tumoral immune function humman peritoneal macrophages by polyresistin

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Objects: To investigate the mechanism of intraperitoneal injection of polyresistin in enhancing the anti－tumoral immune function of peritoneal macrophages. **Methods:** 64 cases of patients with non－inflammation and non－tumor operation were peritoneally injected saline, 0.5, 1.0 and 1.5 mg of polyresistin 2 days before operation. The number of the peritoneal macrophages(PMφ)was counted. The phagocytes activity, the enzyme activity and the NO secretion were analyzed. Using human leukemia cell line K562 as target cells, the anti－tumour cytotoxicity of PMφ was studied. And meanwhile, the greater omentum was harvested and the number of the omental milky spots was counted, the size of the omental milky spots was measured. **Results:** The number, the phagocyte activity, and enzyme activity, the NO secretion and anti－tumoral cytotoxicity of PMϕ was significantly increased by i.p. injection of polyresistin. The number and the size of omental milky spots were also significantly increased by polyresistin.

Conclusion: By activating omental milky spots, intraperitoneal injection of polyresistin increase the number and enhance the immune function of PMϕ, the activated PMφshowed enhancement of anti－tumoral cytotoxicity.

An adult case of Epstein－Barr virus(EBV)－associated T/NK－cell lymphoproliferative disorder, A report of an autopsied case

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This is an autopsied 40 years－old Japanese male manifested about 3 weeks of aggressive clinical course. He received resection of nasal cartilage at 15 years of age and had received blood transfusion. Before 2 months he moved from the next prefecture to Kagoshima. He had common－cold－like symptoms with epipharyngeal pain and transient cervical lymph node swelling. One week after, he felt appetite－loss, nausea and general fatigue and manifested high fever over 40℃, loss of body weight(2 kg/week), leukocytopenia and thrombocytopenia. Physical findings were not particular except dull percussion sound at Traube's triangle suggestive for splenomegaly. Proteinuria, hematouria and high scores of urobilinogen and keton bodies were recognized in his urine. Laboratory findings comprised pancytopenia, high direct and indirect bilirubinemia, mild liver function disorders, elevated CPK, bleeding tendency with elevated FDP and D－dimmer suggestive for fibinolysis, and no antibodies to HB, HC and HTLV－1 except EBV(EBNA(－), EBVCA－IgG:320, EBVCA－IgM:10). Bone marrow indicated hemophagocytes and atypical lymphocytes(2%). In his hospital days, pancytopenia and hemorrhagic tendency with nasal bleeding and subcutaneous hemorrhage progressed. Steroid therapy and blood plasma exchange therapy were performed. But he was died after only 3 weeks from the onset of this illness. Clinically, his illness was diag-

nosed as acute EBV infection with hemophagocytic syndrome(HPS)and severe hepatocellular injury.

Autopsy was performed under the consent of his relatives. A)Chief lesions were acute EBV infection into CD8 T cells, i)Virus－associated hemophagocytic syndrome with status of immunodeficiency(CD4/CD8 ratio:0.04), thrombocytopenic generalized severe hemorrhage in bilateral lungs(atelectasis), pericardium, and retroperitoneum(2 L), splenomegaly(450 g), and hepatomegaly(2,100 g). ii)Acute hepatitis with severe jaundice, probably of virus. iii)Chronic meningitis. B)Accessory lesions were 1)Acute bronchopneumonia with infection of fungus(candida)and gram positive bacillus, acute and chronic tracheobronchitis, impacted hemoviscous sputa in tracheobronchi and generalized congestion and edema, 2)Hemorrhagic gastric ulcer, 3)Ischemic colitis, and 4)Severe hemorrhagic urocystitis.

Recently, chronic active EBV infection(CAEBV)is defined as 1)illness of more than 3 months, 2)increased EBV dose or elevated level of EBV antibodies(VCA－Ig＞5120, EA－Ig＞640), and 3)no underlying identifiable immunological abnormalities(Kimura et al. J Inf Dis 187;527－33, 2003). On the other hand, a concept of EBV－associated T/NK－cell lymphoproliferative disorders was proposed from a viewpoint of hematopathology. This case was not diagnosed as CAEBV but was thought to be categorized in acute EBV infection developed to virus－associated HPS(a fulminant form). We thought that acute infection of EBV in CD8 T cells evoked depletion of CD4 T cells and induced viral hepatitis as well as HPS.

Neural precursor cell Differentiation and Protein Expression in Hippocampus of Prolonged Selenium Deficiency rats

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Objectives: Selenium(Se)is an essential trace element for mammals. The relation of Se and brain function is a poorly recognized. The purpose of this study is to investigated how about neural precursor cell differentiation and mature protein expression in hippocampus of prolonged selenium deficiency rats. **Method:** In this study, behavioral functions and antioxidase activities in blood of offsring rats (P4, P7, P14, P21)were evaluated. The effects of Se deficiency on abilities of learning and memory in Morris water maze, brain morphological development, expression of neural precursor cells marked protein(nestin), proliferating cell nuclear antigen(PCNA), neuroglial correlative differentiated protein, glial fibrillary acidic protein(GFAP)and 2', 3' －cyclic nucleotide 3' －phosphohydrolase(CNPase)expression in hippocampus of the offspring were investigated. **Results:** 1. Glutathione peroxidase (GSH－Px)activities in blood of the Se－deficient group rats(both of parental and offspring of the same age)are lower than that of the control group($P<0.05$). 2. Se－deficient group' offspring weight less than the control groups when they were born and during the preweaing(P4, P7, P14, P21). 3. Expression of nestin and PCNA: the expression of nestin and PCNA was similar. Not only both of them had been always observed in hippocampus from P4 to P21 but also become much fewer as the rats grow up. (1)Se－group had a larger optical density in DG of hippocampus on P4(<0.01). (2)Se－group not only had more PCNA＋ cells in CA1 and CA3 of hippocampus from P4～P7 but also had more PCNA＋ cells in CA1 and DG on P21. But no significant difference between the Se－ group and the control group on P14. 4. Expression of neuroglial correlative differentiated protein. (1)There was no positive expression of GFAP on P4 and few GFAP＋ cells on P7. The distributions of GFAP＋ cells between two groups were similar on P14 and P21. They located mainly in hippocampus and most white matters. The optical density of positive for control was much higher than Se－ in DG on P14 and P21($P<0.05$). (2)There was no positive expression of CNPase on P4 and P7. More and more CNPase＋ cells had been observed in white matter from P14 but few in hippocampus. Se－group had a slighter optical density in DG on P21($P<0.05$). **Conclusions:** Se－deficient animal model on F344 inbred line rats had been duplicated successully. 1. Prolonged Se－deficiency could delay the morphological development of hippocampus with different degrees and had effects on the migration of neural precursor cells to hippocampus, 2. Se－deficiency could delay the dif-

ferentiation and multiplication of neuroglial correlative differentiated protein GFAP, but didn't have a signicant effect on the expression of CNPase.

Transplantation of autologous peripheral blood stem cells for the treatment of limb ischemic disorder

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Objective: To observe the clinical efficacy of autologous peripheral blood stem cells(PBSC) transplantation in 52 cases with limb ischemic disorder. **Methods:** Totolly 52 patients with 31 cases diabetic foot, 17 limb arteriosclerosis obliterans and 4 thromboangitis obliterans received rhG－CSF 450～600ug/d by hypodermic injection for 5 days to mobilize stem cells. On the sixth day, PBSC were collected by COBE 6.1 Spectra Version for 82～148ml, CD34＋ cells were 0.36%～0.92%. The PBSC were injected into the ischemic limbs and foot intramuscularly for 3x3cm distance. The clinical and laboratory findings were monitored. **Results:** In 52 patients with PBSC transplantation, severe pain－free was fined in 45 cases for 3～14 days, foot cool－felling changed in 47 patients for 2～7 days, foot ulcer improved in 8 cases for 4～12 weeks. ABI increased in 16 cases. Digital subtraction angiographic scores were peformed in 2 patients after 8 weeks, there were new collateral vessels formation. No related complication or adverse effect were observed in all process. **Conclusion:** Autologous PBSC transplantation might be a safe and effective method for limb ischemic disorder.

The inhibitory effects of angiostatin on human endothelial cells induced by tumor

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Objective: To observe the inhibitory effects of angiostatin on human umbilical vein endothelial cells(HUVEC) and test the efficacy of native angiostatin in suppressing experimental neovascularization induced by tumor.

Methods: Angiostatin was purified with L－lysine Sepharose 4B from human plasma. The primary endothelial cells from HUVEC were cultured. Endothelial cells growth inhibition assay was carried out with MTT method. Neovascularization induced by tumor were divided into 4 groups: normal, control and various doses. The number of new vesselbuds extending from the endothelial cells in different groups were counted and compared under the light microscope.

Results: Angiostatin could inhibit the growth of endothelial cells from human in vitro. There were plenty of new vesselbuds in stimulus condition by tumor. The number of new vesselbuds were reduced by 34%、52% and 85% respectively.

Conclusion: Angiostatin can powerfully inhibit growth of human endothelial cells. The proliferation of neovascularization may be suppressed by using angiostatin.

The analysis of pathologic diagnosis in 4312 rapid frozen histological sections

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Objective: Our aim was to analyze the proportion and pathologic classification of thyroid diseases in 4312 cases rapid frozen histological sections.

Method: The proportion, pathologic classification and accurate rate of thyroid diseases in all frozen sections of the whole year were examined and analyzed.

Results: In 4312 cases frozen sections, the thyroid diseases were 823 cases(19%)and were the most frequent disease. The nodular goiter was 62%(514/823)and the most frequent type in thyroid diseases. The papillary adenocarcinoma was the dominant type(46%, 46/103)of thyroid malignant tumors; and Hashimotos thyroiditis was most common in thyreoitis(60%, 21/35). **Conclusion:** Thyroid diseases are the most frequent diseases in frozen histological sections and the accurate rate of diagnosis is 99.76%.

Pin1 overexpression in Squamous Cell Carcinoma and Adenocarcinoma of Lung and Its Correlation with CyclinD1

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Objective: Background and objective Pin1 is human peptidyl－proly1 isomerase. Many studies have showed that Pin1 was closely related to occurrence and proliferationin in many malignant tumors, and it appeared to be an upstream cross point of tumor associated factors. The aim of this study is to explore the relationship between the expression of Pin1 and some clinical pathological factors in squamous cell carcinoma and adenocarcinoma of lung, and analyze whether there is relativity between Pin1 and CyclinD1.

Methods: Immunohistochemical S－P method was adopted to detect the expression of Pin1 and CyclinD1 proteins in 69 cases with the neighboring noncancerous tissue, and the expression of them in 20 cases of lung cancer and 10 cases of normal human lung tissue were determined with Western Blot assay.

Result: Immunohischemically, the overexpression of Pin1 and CyclinD1 protein were 54/69(78.3%)and 36/69 (52.2%)respectively. The expression of Pin1 and CyclinD1 in the tumor tissues was much higher than that in the normal tissues. the expression of Pin1 protein was not related to age、sex、histological type、differentiation、lymph node metastasis and P－TNM stage. The expression of CyclinD1 protein was negatively related to differentiation($P=0.0274$), but not related to age、sex、histological type、differentiation、lymph node metastasis and P－TNM stage. Pin1 kept significant positive correlation to CyclinD1($p=0.0048$)Western Blot result showed that the level of Pin1($P=0.0000$)and CyclinD1($P=0.0000$)in the tumor tissues was noticeably higher than that in the normal tissues, and an positive correlation between them was proved($P=0.0002$).

Conclusion: In lung cancer Pin1 can interact with some tumor associated factors, through which it appears to be involved in several oncogenesis－related events, Pin1 keeps significant positive correlation to CyclinD1, and it would be the main pathway for Pin1 to affect the generation and development of tumor.

The Expression and Significance of Pin1 and β－catenin in Squamous Cell Carcinoma and Adenocarcinoma of Lung

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Background and objective: The conformation of a subset of phosphorylated serines or threonines preceding proline motifs is regulated by the prolyl isomerase Pin1. Pin1 plays a critical role in oncogenesis. The aim of this study is to explore the relationgship between the expression of Pin1 and some clinical pathological factors of the squamous cell carcinoma and adenocarcinoma of lung, and analyze whether there is relativity between Pin1 and β－catenin.

Methods: Immuno－histochemical S－P method was adopted to detect the expression of Pin1 and β－catenin proteins in 69 lung cancer cases, and the expression of them in 30 fresh lung samples were determined with Western Blot assay.

Results: Immunohistochemcally, the overexpression of Pin1 and β－catenin in lung cancers was 78.3%(54/69) and 63.8%(44/69), respectively. Overexpression of Pin1 and aberrant expression of β－catenin were found in 15 (75%) and 16(80%) of 20 lung cancer cases, respectively, which were also analyzed by Western Blot. The ex-

pression of Pin1 was not correlated to age(P = 0.0836), sex(P = 0.5358), histological classification(P = 0.4557), differentiation(P = 0.6945), lymph node metasis(P = 0.6645)and P - TNM stage(P = 0.7783). The expression of β - catenin was correlated to the differentiation(P = 0.0223), lymph node metasis(P = 0.0164)of lung cancer. Additionally, overexpression of Pin1 and aberrant expression of β - catenin showed a significantly positive correlation. (r = 0.447, P = 0.0021). Western Blot result showed that the expression of Pin1 and β - catenin in squamous cell carcinima and adenocarcinoma of lung was much higher than normal lung tissues(P = 0.0000).

Conclusion: The overexpression of Pin1 is associated with the oncogenesis of lung cancer. In lung cancer tissues, overexpression of Pin1 and aberrant expression ofβ - catenin showed a significantly positive correlation.

Correlation between expression of p38MAPK signaling molecule and uPA in breast cancer

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Purpose: To explore the expression of phosphorylated p38 mitogen activated protein kinase(p - p38)and uPA and its correlation with the clinicopathological characteristics of breast cancer, and to investigate the mechanism of p38MAPK signaling pathway regulating uPA protein expression in breast cancer cells.

Methods: Immunohistochemistry(S - P)was used to test the expression of p - p38 and uPA in 60 specimens of breast cancer tissues. Western blot was adopted to detect the expression of p - p38 and uPA protein in breast cancer cells MDA - MB - 231 and MCF - 7 and uPA protein expression after SB203580, an specific inhibitor of p38 MAPK blocked p38MAPK signaling pathway.

Results: The positive rate of p - p38 protein and uPA protein in breast cancer tissues was 56.7% and 60.0%, respectively. The expression of p - p38 was positively related to the expression of uPA(r = 0.316, P < 0.05). The expression of p - p38 and uPA was related to lymph node metastasis and TNM stage(P < 0.05), and it was not related to patients' age and tumor size(P > 0.05). The expression of p - p38 and uPA in breast cancer cells MDA - MB - 231 was higher than that in MCF - 7. SB203580 inhibited p38MAPK pathway and reduced uPA protein expression.

Conclusions: p38MAPK signaling pathway promotes breast cancer malignant progression by up - regulating uPA expression and it may be an important route in breast cancer invasion and metastasis.

The relationship of Thymosin β_{15} with Differentiation and Metastasis of Prostate Cancer

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Aim: The mortality of the benign prostate hypertrophy(BPH)and the prostate cancer(PCa)are increased. The research of tumor aggregation and metastasis has become a hotspot. So I assessed the presence of $T\beta_{15}$ in prostate cancer and analysed the relationships between $T\beta_{15}$ expression and prostate cancer's differentiation and metastasis, in order to explore the significance of metastasis and prognosis.

Materials and Methods: 61 prostate cancer tissues, fixed in 10% formaldehyde and embedded in paraffin. Immunohistochemical staining was performed. Negative comparison processed with PBS instead of the primary antibody. Positive result refers to the appearance of brown - yellow in cytoplasm. Statistical Product and Services Solutions(SPSS)statistical software is used to analysis the datas. A P - value less than 0.05 was considered significant.

Results: There was a significant positive correlation between the $T\beta_{15}$ expression and the age, tumor volume, high to low differentiation, and metastasis of PCa.

Conclusion: 1. The $T\beta_{15}$ is highly expressed in PCa, but has no expression in BPH and normal prostate tissue,

which indicates that $T\beta_{15}$ may become a biological marker of PCa judgement; 2. The $T\beta_{15}$ high expression is significantly correlated with age, tumor volume and lymph node metastasis; 3. The $T\beta_{15}$ high expression is significantly correlated with high to low differentiation.

The Role of Insulin－like Growth Factor－2(IGF2) Geen Dmrs in Tcdd－Induced Malformation

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Objective: To study the effects of 2, 3, 7, 8－tetrachlorodibenzo－p－dioxin(TCDD)on the development of fetal rats. To explore the relationship between TCDD－induced abnormal development in rats and the expression and the methylation of insulin－like growth factor 2(IGF2).

Methods: A single dose of 10 μg/kg TCDD was given to gestation day(GD)10 pregnant rats by gavage. On GD20, the fetuses were taken out and examined. The fetal heights and the body weights were measured. The expression of IGF2 in different tissues was detected by quantitative real－time RT－PCR and the protein expression of IGF2 in liver was detected by immunohistochemistry. The methylation of IGF2 differentially methylated regions(DMRs)in liver was analyzed by a methylation－sensitive restriction enzyme Hpa Ⅱ－PCR assay or a bisulfite－modified DNA sequencing procedure.

Results: In the treatment group, 12.2% of the fetuses were either dead or absorbed, and 11.6% of them were malformed. For the live fetuses, their heights and body weights were significantly lower than those of the control group. Real－time quantitative RT－PCR showed no significant difference between the two groups in all the examined tissues except the liver. The relative amount of IGF2 mRNA in the treated livers and the control livers was 0.77 ± 0.11 and 0.27 ± 0.15, respectively. The number was significantly higher in the treatment group than in the control group. Immunohistochemistry also shows a remarkable upregulation of IGF2 protein in liver after treatment. The two groups show no difference in the methylation status of IGF2 DMR1 in liver. The DMR2 of IGF2 was significantly hypomethylated in the treated livers than in the control livers.

Conclusion: Exposed to TCDD in pregnancy can lead fetal rats to dead, absorbed, malformed and intrauterine growth retardation(IUGR). The TCDD led abnormal development in rats may be associated with the hypomethylated DMR2 of IGF2 and the upregulation of IGF2 in liver.

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Changes of Ultramicro－appearance of Tracheal Stem Cells During Rat Tracheal Regeneration

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Introduction: we have previously constructed a tracheal injury model induced by 5－fluorouracil(5－FU)ex vivo in rats and identified tracheal stem cells exist in the G0 cells, which can eliminate fluorescence Hoechst33342 and were ABCG2 positive. In our studies, we observed the ultraminiaturize and three－dimensional changes of tracheal epithelium during regeneration by contrasting scanning electron microscope and HE stain. **Materials and Methods:** 1. Preparation of tracheal epithelium regeneration model. The tracheal rings were excised sterilely and cultured in medium containing 5－FU, then, refreshed by culturing in medium without 5－FU. Tracheal rings were taken out at 0, 3, 6, 9, 12, 24, 48, 72h time points after removing 5－FU. 2. Hematoxylin－eosin stain was used to observe the morphological changes during tracheal epithelium regeneration. 3. Observe the changes of ultramicro－appearance in this process by scanning electron microscope. **Results:** 1. Morphological Changes in Tracheal Epithelium with HE: The tracheal epithelium desquamated after 5－FU treatment. The residual were trifle nude－nucleus cells distributed intervallic on the basement membrane(G0 phase cells). We observed the tracheal epithelium at 3h, 6h, 9h, 12h, 24h after removing 5－FU, and found the morphological of the cells changed ex-

treme flat, flat, cuboidal gradually. At 48h, pseudostratified mucociliary epithelium appeared in some region of tracheal epithelium. At 72h, pseudostratified mucociliary epithelium were restored to its original mode essentially. 2. Micromorphologic Changes in Tracheal Epithelium with Scanning Electron Microscope: After 5 – FU treated 12h, there were a few residual tracheal epithelium cells, distributed intervally, the surface of the cells was smooth, and the cells were global, no cilium. At 3h after removing 5 – FU, the cells were thin and derased, and extended a lot of irregular and flat cytoplasmic ecptomas, and no connection among them. At 6h, 9h, 12h, the number and the volume of the cells increased and disposited concentratly gradually. At 24h, there were microvillis on surface of the cells. At 48h, the cells introjected into slice, and some cells erupted slender cilias. At 72h, ciliated cells increased, and distributed among the cells with microvillis intervally. **Conclusions:** Our studies revealed firstly that the morphological changes tendency between the ultramicro – and HE is similar, that the nude – nucleus cells differentiate into flat epithelium, cubical epithelium and pseudostratified ciliated columnar epithelium gradually.

Changes in Wnt/β – catenin Signaling Pathway During Regulated Proliferation and Differentiation of Tracheal Stem Cells in Rat Tracheal Regeneration

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To explore the mechanism of involvement of the Wnt/β – catenin pathway during regulated proliferation and differentiation of tracheal epithelial stem cells in rats, a tracheal injury model induced by 5 – fluorouracil(5 – FU)ex vivo was utilized to identify changes in epithelial morphology, levels of Wnt1, β – catenin, and cyclinD1 mRNAs, and localization of β – catenin protein during rat tracheal epithelial regeneration. No detectable levels of Wnt1 and cyclinD1 mRNAs were found in normal tracheal epithelium.

Level of β – catenin mRNA was shown to be low and the protein was localized to cell membranes. Immediately following the removal of 5 – FU, we observed the retained cells in G0 were like naked nuclei and stem cells were in them. Level of Wnt1 mRNA increased at this time, but level of β – catenin mRNA decreased slightly. Level of Wnt1 mRNA was elevated maximally at 3 h after the removal of 5 – FU with the appearance of flattened epithelial cells. Levels of β – catenin and cyclinD1 mRNAs reached maximally at 6 and 12 h respectively. Nuclear β – catenin was observed during this period. At 24 h most of the epithelial cells were cuboidal and decreased levels of Wnt1, β – catenin and cyclinD1 mRNAs were observed. Although the pseudostratified mucociliary epithelium restored to its original mode at 48 h, there were no detectable levels of Wnt1 and cyclinD1 mRNAs.

Our findings indicate that the Wnt/β – catenin pathway plays a role in proliferation and differentiation of tracheal epithelial stem cells. Our studies will contribute to our understanding of the molecular mechanisms that regulate self – renewal and lineage – specific differentiation.

Dynamic changes of Histone deacetylase 1 During Regulated Growth of Bronchial Stem Cells in human bronchial Regeneration

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Introduction: we have previously constructed a bronchial injury model induced by 5 – fluorouracil(5 – FU)ex vivo to localize the bronchial stem cells and idendified bronchial stem cells exist in the G0 cells. However, the mechanism that reguate bronchial stem cell proliferation and differentiation is largely unknown. Recently, it has been reported that Histone deacetylase 1(HDAC1)is required for the switch of retinal stem cells from proliferation to

differentiation in the zebrafish retinal neurogenesis. To determine the function of HDAC1 during regulated growth of human bronchial epithelial stem cells, we want to observe initially its changes in space – time expression and explore the relationship between HDAC1 and bronchial stem cell proliferation and differentiation.

Materials and Methods: 1. Preparation of bronchial Epithelium Regeneration Model. 2. Hematoxylin – eosin stain was used to observe the morphological changes during bronchial epithelium regeneration. 3. Immunohistochemistry and western blot was used to identify the expression of HDAC1 and changes in levels of HDAC1 protein respectively during bronchial epithelium regeneration.

Results: 1. Morphological Changes in Bronchial Epithelium: The bronchial epithelium desquamated after 5 – FU treatment. The residual were trifle nude – nucleus cells distributed intervally on the basement membrane (G0 phase cells). When removing 5 – FU, the bronchial epithelium began to recover. The bronchial rings were covered with flattened epithelial cells at 3 – 6h after the removal of 5 – FU. At 12h, most of the epithelial cells were cuboidal cells and merged into pieces, the number of the cells increased. At 24h, pseudostratified mucociliary epithelium appeared in some region of bronchial epithelium, and the ciliated cells could be seen. At 48h, pseudostratified mucociliary epithelium were restored to its original mode similarly. 2. Expression of HDAC1 in Bronchial Epithelium: HDAC1 localized in nucleus. Result of Immunohistochemistry showed the Expression of HDAC1 was negative in normal bronchial epithelium and in the epithelium at oh after 5 – FU treatment. Only few of the epithelial cells were HDAC1 positive at 3h – 6h after the removal of 5 – FU. HDAC1 positive cells increased obviously at 12h and was in top expression at 24h, then decreased slightly at 48h. 3. Changes in HDAC1 protein Levels during Bronchial Epithelial Regeneration: Result of western blot indicated that there was no detectable level of HDAC1 protein in normal bronchial epithelium and in the epithelium at oh after 5 – FU treatment. The level of HDAC1 protein was elevated slightly at 3 – 6h after the removal of 5 – FU, reached a top at 24h and then decreased slightly at 48h.

Conclusions: Our work showed the expression of HDAC1 was few during bronchial stem cell proliferation and increased obviously when differentiation occurs. With more differentiating cells appeared, more HDAC1 – positive cells were observed, suggesting that HDAC1 might play a significant role in the switch of bronchial epithelial stem cells fom proliferation to differentiation. We conclude that HDAC1 function as a molecular switch of bronchial epithelial stem cells fom proliferation to differentiation during regulated growth of human bronchial epithelial stem cells.

Expression and Significance of Scavenger Receptor A in stroma of nasal NK/T cell lymphoma

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Objective: To analyze the relationship between the expression of SR – A(Scavenger receptor A)and nasal NK/T cell lymphoma. Materials 95 cases were obtained from The First Affiliated Hospital of China Medical University from 1996 to 2000, and from 2002 to 2004, including 55 cases of nasal NK/T cell lymphomas, 24 cases of B cell lymphomas and 16 cases of inflammations. In 55 cases of nasal NK/T cell lymphomas, male: 34, female: 21. The age was from 13 to 77, the mean age was 45.5. In 24 cases of B cell lymphomas, male: 15, female: 9. The age was from 7 to 82, the mean age was 61.9.

Methods: (1)HE dyeing: Generally, slice was missed out wax to hydrate, stained by haematoxylin and eosin, then covered by general clarity gum. (2)Immunohistochemistry: Slices were missed out wax to hydrate, by antigen repairing, dropped in non – antigen animal serum, incubated 30 minutes in 37 temperature. All the steps of SP immunohistochemistry were done by the introduction of SP box: joining up first and second antibodies, DAB, dyeing with haematoxylin again, slices were covered by general clarity gum. (3)Result determinant: SR – A protein was

located in cytomembrane and/or cytoplasm, different brown granular reaction. SR－A positive cells excess10% is regarded as masculine.

Results: SR－A expressed mainly in cytomembrane and/or cytoplasm, and SR－A positive cells were mainly distributed in macrophages of lymphoma stroma. The positive rate of SR－A was 92.7% (51/55) in nasal NK/T cell lymphomas, 29.2% (7/24) in nasal B cell lymphomas and 6.25% (1/16) in nasal inflammation. The expression of SR－A between nasal NK/T cell lymphoma and B cell lymphoma, and between nasal NK/T cell lymphoma and nasal inflammation had significant difference ($P<0.001$).

Conclusion: SR－A might be useful in diagnosis of nasal NK/T lymphoma, and differential diagnosis of nasal NK/T cell lymphoma with nasal B cell lymphoma and nasal inflammation.

Expression of Wnt－1 in Rat Tracheal Stem Cell during the Early Proliferation and Differentiation

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Objective: Determine the expression of Wnt－1, β－Catenin, Tcf－4 mRNA, c－Myc in rat tracheal epithelium during the regeneration after injury, to explore the mechanisms in the early proliferation and differentiation of the tracheal stem cells.

Method: Extracorporeal tracheal injury was induced by 5－FU. Tracheas were taked out on 0, 6, 12, 24, 48 hours after removement of 5－FU. Wnt－1 expression in tracheal epithelium during the process of regeneration was analyzed by immunohistochemistry、Western blotting ang RT－PCR.

Results: After treatment with 5－FU for 12 hours, the tracheal epithelium shed and some of the retained cells in G0 were Wnt signal positive. 6 hours after the removal of 5－FU, the tracheal rings were covered with flattened epithelial cells. Wnt－1、Tcf－4 mRNA positive cells increased obviously. At 12 hours after the removal of 5－FU, most of the epithelial cells were cuboidal and merged into pieces, the Wnt－1、Tcf－4 mRNA positive cells decreased obviously, but β－Catenin、c－Myc mRNApositive cells increased obviously. At 48 hours, only few Wnt signal positive cells could be seen with some of the pseudostratified mucociliary epithelium restored similar to its original mode.

Conclusions: 1. This study applied fluorouracil (5－FU) as a injury factor, developed an in vitro injury model of rat tracheal epithelium. Just the proliferation and differentiation of tracheal stem cells regenerated tracheal epithelium. 2. The expression of Wnt－1 corresponds with the wound and healing process of tracheal epithelium, suggesting that Wnt－1 may plays the important effect in regulating the tracheal stem cell proliferation and differentiation. 3. The increased expression of cytoplasmic β－catenin may promote the proliferation of the tracheal stem cell, while inhibite its differentiation. 4. The expression of TCF－4 is time dependence in the tracheal wound healing, suggesting that TCF－4 is the important positive regulator in the process of the proliferation and differentiation of tracheal stem cells. 5. c－myc may participate in the regulation of proliferation、differentiation and. repaire of the tracheal epithelium, and its expression could induce the proliferation of the tracheal stem cell, while inhibit its differentiation.

Expression of aquaporin－3(AQP3) and its significance in normal and neoplastic lung tissues

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Objective: Aquaporin－3 (AQP3) acts as the membrane channel of water and other small solutions and plays a major role in fluid homeostasis. Objective: To investigate the expression of AQP3 in normal and neoplastic lung tissues and its correlation with the clinical and pathologic parameters.

Methods: Immunohistochemistry (Envision method), immunofluorescence, Western blot and RT – PCR were used to detect the expression of protein and mRNA of AQP3 in 159 lung carcinoma cases and 2 cell lines.
Results: (1) In normal lung tissues, immunohistochemical expression of AQP3 was demonstrated in the membrane of bronchial and bronchiolar epithelial cells, alveolar type – II cells and secretory cells of submucosal glands. (2) In lung carcinomas, AQP3 expression was observed in 59 of 84 adenocarcinomas(70.2%). Squamous cell carcinoma and large cell carcinoma were rather low in the positive ratio(15/38, 35.8% and 2/15, 13.4%, respectively). No AQP3 expression was demonstrated in small cell carcinoma, pleomorphic carcinoma, and metastatic colon adenocarcinoma(10, 4 and 4 cases, respectively). (3) In adenocarcinomas, AQP3 was detected in all tumors of bronchiolo – alveolar subtype. Papillary subtype also showed a higher positive ratio of AQP3(32/39, 82.1%) comparing with that in acinar(9/17, 52.9%) and solid with mucin subtypes(4/16, 25.0%). (4) There was a significant correlation between expression of AQP3 and tumor differentiation and clinical stage in adenocarcinomas by X2 statistic analysis. (5) Western blot and RT – PCR analyses also confirmed the expression of protein and mRNA of AQP3 in cell lines and tissues of lung adenocarcinoma.
Conclusions: AQP3 is widely expressed in normal respiratory tract and can play an important role for the maintenance of water homeostasis. In addition, the expression of AQP3 is related in lung carcinoma type、subtype、tumor differentiation and clinical stage, suggesting that AQP3 plays an important role in carcinogenesis and development of lung carcinoma, and may be a new candidate tumor marker of lung adenocarcinoma diagnosis and differential diagnosis in the future.

Detection and significance of β – Glucuronidase mRNa in the tissue of liver and kidney of human being

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Objective: To establish and compare detection method of β – glucuronidase(β – G) mRNA in the tissue of liver and kidney of human being.
Methods: Expression of β – G mRNA was used by reverse transcription polymerase chain reaction(RT – PCR) in 10 cases normal liver, 10 cases normal kidney and 8 cases hepatocellular carcinoma.
Results: Products of expand and increase were expressed in the tissue of liver and kidney. Size of products was same, 422bp, opposite expression content of β – G mRNA showed normal liver tissue(1.71 ± 0.32) normal kidney tissue(1.83 ± 0.22) the difference had no statistical significance($P > 0.05$) the compare between normal liver tissue and hepatocellular carcinomal tissue(3.88 ± 0.86) the diffence had statistical significance($P < 0.01$). **Conclusion:** Method of examingβ – G mRNA gene was feasible by checking β – G gene alignment in gene library and designing draw matter in the tissue of liver and kidney. It may be very significance for exploring change of β – G mRNA in hepatocellular carcinomal tissue and reseaching molecular mechanism of hepatocrllular carcinoma.

Expression and significance of β – Glucunidase mRNA in different diffentiation tissue of hepatocellular carcinoma

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Objective: To explore exprossion and significance of β – glucuronidase(β – G) mRNAin different diffe – rentiation

the tissue of hepatovellular carcinoma.

Methods: Reverse transcription polymerase chain reaction(RT－PCR) technique was used to detect the expression of β－G mRNA and to contractly study in 10 cases of normal liver tissue and 38 cases of different differentiation the tissue of hepatocellular carcinoma.

Results: β－G mRNA was expressed in normal liver tissue and hepatocellular carcinoma, the size of their products wese same, 422bp, opposite semiquantitative express content of showed normal liver tissue(1.71 ± 0.32) and hight differentiation hepatocellular carcinoma(2.17 ± 1.07) respectively, this different had no statistical significantion($P>0.05$). form normal liver tissue to middle differentiation hepatocellular carcinoma(3.67 ± 1.27) and low differentiation hepatocellular carcinoma(5.63 ± 1.62) the different between their had statistical significance ($P<0.05$ and $P<0.01$) respectively. **Conclusion:** Expression of β－G mRNA was remarkable different in Different differentiation hepatocellular carcinomal tissue, along with malignant degree increased quan－tity of expression increased progressively tendency. It point out that β－G mRNA may participate in course of carcinomal change of liver cells, to explore further β－G mRNA may be very significance to study molecule mechanism of hepatocellular carcinoma.

Both Abnormal β－Catenin and Reduced Axin Expression Are Associated with Poor Differentiation and Progression in Non－Small Cell Lung Cancer

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Financial support: National Natural Science Foundation of China(grant 30470764 to E.－H.W.).

We investigated the expression of Axin and β－catenin and their relation to clinicopathologic factors in 100 non－small cell lung cancer(NSCLC) by immunohistochemistry. The mutation in exon 3 of the β－catenin gene was examined by PCR and direct sequencing. Preserved Axin expression was significantly higher in well and moderately differentiated NSCLC samples than in poorly differentiated ones. Eighty cases showed reduced membranous expression of β－catenin, while twenty－six cases had aberrant nuclear expression. Poor differentiation and lymph node metastasis were significantly associated with reduced β－catenin expression. Lower Axin expression was significantly related to higher nuclear β－catenin expression. However, this study failed to detect any exon 3 mutation in the β－catenin gene in the 100 NSCLC samples. We conclude that reduced β－catenin and Axin expression may predict poor differentiation in NSCLC. Reduced Axin expression, but not mutation in exon 3, may be an important explanation for abnormal β－catenin expression in NSCLC.

Effect of HSP90 on apoptosis of NIH3T3 cells induced by TNF－α/CHX

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Background and objective: Apoptosis is a cell death process which occurs during development and aging of animals. It is also induced by cytotoxic lymphocytes(CTL), anti－cancer drugs, UV－irradiation, a group of cytokines called death factors, and deprivation of survival factors. Several studies have showed that through a serious of molecular and biochemical signal pathways, tumor necrosis factor－α(TNF－α) bind to cycloheximide (CHX) would induce apoptosis. Hsp90(heat－shock protein 90) is a highly conservative protein, and necessary to the survival of eukaryotic cell. The aim of this study is to explore the relationship between Hsp90 and TNF－α/CHX－induced apoptosis.

Methods: Stable HSP90 overexpression clones were established then adopted the laser confocal microscopy and flow cytometry to observe apoptosis induced by TNF－α/CHX.

Results: HSP90 itself was stably maintained in TNF－α/CHX－induced apoptosis for at least 12 hours. Compared to the normal NIH3T3 cells, the TNF－α－induced apoptosis in stable HSP90－overexpressing NIH3T3 cells was significantly suppressed after 6 hours($P<0.01$).

Conclusion: HSP90 could suppress apoptosis induced by TNF－α/CHX.

Expression of TRAF4 in Breast Carcinoma

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Objective To investigate the expression of TRAF4 in breast carcinoma tissue and cells and its relationship with invasiveness.

Methods: The expression of TRAF4 in breast carcinoma tissue was detected with immunohistochemistry and compared with benign tissues. The expression of TRAF4 in cultured high and low metastasis human breast cancer cells, respectively MDA－MB－231 and MCF－7, was detected with western blotting.

Results: TRAF4 express both in cell cytoplasm and nucleus in normal breast and breast carcinoma tissues. Compared with that in normal breast or intraductal carcinoma tissues, the cytoplasmic positive rate of TRAF4 in breast carcinoma or invasive carcinoma tissues increases slightly($P>0.05$). The nuclear positive rate of TRAF4 decreases notably in breast cancer then in normal breast tissues($P<0.01$). Compared with that in intraductal carcinoma tissues, the nuclear positive rate of TRAF4 in invasive carcinoma decreases notably($P<0.05$). The total protein quantity of TRAF4 in MDA－MB－231 is more than that in MCF－7.

Conclusions: The high expression in cytoplasm and the low expression in nucleus of TRAF4 in breast carcinoma indicate that TRAF4 protein may play an important role in the development of breast carcinoma by entering in the nucleus from the cytoplasm. The nuclear expression of TRAF4 may be an index to judge the invasiveness of breast carcinoma.

Expression and Significance of PRL－3 in Human Non－small Cell Lung Cancer

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Objective: To study the relationship between expression of protein tyrosine phosphatase PRL－3 and clinical－pathological features and prognosis in human non－small cell lung cancer(NSCLC).

Methods: The expression of PRL－3 was examined in 100 paraffin－embedded specimens by immunohistochemcal staining and 30 freshly－taken tissues by Western Blotting, as well as their neighboring noncancerous tissue. The significance of PRL－3 expression was analyzed.

Results: The immunoreactive staining was located in cytoplasm in NSCLC while negative in epithelial of normal lung tissues. The positive rate of PRL－3 was 70%, which was closely associated with clinic stage($P=0.007$, $R=0.262$)and the extend of lymph node metastasis($P=0.001$, $R=0.323$). Among 100 NSCLC, the MVD mean of the group with positive expression of PRL－3 was higher than that with negative expression of PRL－3, and they were significant different in statistics($P=0.000$). The results of Western Blotting also showed that the level of PRL－3 was higher in NSCLC than in para－carcinoma($P=0.000$). Moreover, those examples with nodes metastasis showed higher expression than those without nodes metastasis($P=0.031$). The patients with positive PRL－3 expression had significantly shorter survival than those with negative PRL－3 expression($P=0.0020$). In multivariate analysis, only p－TNM stage and node metastasis could be considered as prognostic factors.

Conclusion: These results strongly suggest that the level of PRL－3 can indicate the potential of metastasis at some extent and it may accelerate growth and metastasis of NSCLC by promoting angiogenesis.

Expression of Heparanase Protein in Human Non－small Cell Lung Cancer

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Objective: To study the expression of Heparanase(Hpa) protein in human non－small cell lung cancer(NSCLC) and the correlation with lung cancer metastasis.

Methods: The expression of Hpa was assessed by immunohistochemical staining in 53 human lung adenocarcinoma, 69 human lung squamous cell carcinoma tissue samples and 45 human normal lung tissue samples. As the same time, the expression of Hpa in two different metastatic potential sublines of human lung giant cell cancer PG cell line was examined by immunohistochemical staining and Western blot.

Results: Hpa was found in cytoplasm or/and membrane of cancer cells. Hpa was highly expressed in human lung adenocarcinoma and squamous cell carcinoma(78.7%, 96/122), whereas epithelia of normal lung tissues expressed no Hpa. The expression of Hpa correlated with NSCLC lymphatic metastasis($P=0.002$), vascular invasion($P=0.0003$) and TNM stage($P=0.025$). In human lung giant cell cancer PG cell line, immunohistochemical staining intensity of Hpa in highly metastatic potential cell subline PG－BE1 was stronger than this in weakly metastatic potential cell subline PG－LH7; as a result of Western blot analysis, the expression level of Hpa in PG－BE1(0.670 ± 0.020) increased significantly compared with this in PG－LH7(0.406 ± 0.012).

Conclusion: Expression of Hpa was increased markedly in human NSCLC. It might play an important role in development, invasion and metastasis of the cancer.

Expression and Significance of RHO－GDIa in Lung Cancer and Lung Cancer Cell Lines

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Rho－GDIa is a Rho GDP dissociation inhibitor that is widely expressed in human tissues. Its possible expression and function in lung cancer has not been described. Here, RT－PCR, western blot and immunohistochemistry SP were used to detect the expression of Rho－GDIa and Rho C in 30 cases lung cancer and corresponding normal lung tissues, and four lung cancer cell lines(PG－BE1 and PG－LH7 are large cell cancer with different survival duration, GLC－A2 and A549 are adenocarcinoma cell lines). We found that compared with normal lung tissues, the mRNA and protern expression level were up－regulated in cancer tissues. Rho－GDIa expressed in the cytoplasm of both squamous cell cancer and adenocarcinoma, while weakly expressed in ciliated columnary epithelium, and absent in normal alveolar epithelium. Also, Rho－GDIa showed significantly higher expression in lung cancer cell lines compared with Homo sapien Bronchus Epithelial cell line(HBE). Rho C mRNA showed significant higher expression in BE1(high metastasis capability subtype) than in LH7(low metastasis capability subtype). These results show that it may play a role in the carcinogenesis of non－small cell lung cancer, and Rho C expression correlates with metastasis of lung cancer.

The Expression of FAP in Breast Cancer Stroma and It's Relationship between FAP and MVD

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Aim: The human fibroblast－activation protein(FAP), a member of the serine protease family, was discovered as an inducible type－Ⅱ cell－surface glycoprotein selectively expressed by reactive stromal fibroblast of epithelial

cancer and healing wounds. It's structure makes it accept other cell signal, then regulate the adhesion and migration of epithelial cells. We detect the expression of FAP in breast fibroadenoma、breast adenosis、breast intraductal carcinoma、breast invasive ductal carcinoma and MCF－7(Estrogen Receptor－positive human breast cancer cell line)－CCC－HPF－1(human embryo lung fibroblasts)、MDA－MB－231(Estrogen Receptor－negative human breast cancer cell line)－CCC－HPF－1 co－culture model by methods of immunohistochemistry and Western Blotting analysis and we investigate the relationship between FAP and MVD or lymphatic metastasis.

Method: 1)We analysis the expression of FAP in breast tissues and it's relationship between FAP and MVD or lymphatic metastasis by the method of immunohistochemistry. 2)We observe changes of protein content of FAP in breast tissues and MCF－7－CCC－HPF－1、MDA－MB－231－CCC－HPF－1 co－culture model by the method of Western Blotting. **Result:** 1)The result of the immunohistochemistry suggests that FAP is observed on the fibroblast cell membrane or in the cytoplastic in breast cancer stroma. No staining was found in the breast fibroadenomas, breast adenosis. 2)The result of the Western Blotting suggests that the protein content of FAP of breast invasive ductal carcinomas is more abundant than that of breast intraductal carcinoma. But, no statistically difference of protein content of FAP was found between breast intraductal carcinomas and invasive ductal carcinomas($P>0.05$)and Ⅱ)the protein content of FAP of MDA－MB－231－CCC－HPF－1 co－culture model is more abundant than that of MCF－7－CCC－HPF－1 co－culture model. No statistically difference of protein content of FAP was found between MCF－7－CCC－HPF－1 and MDA－MB－231－CCC－HPF－1 co－culture model($P>0.05$). 3)There was a significantly positive correlation between FAP and CD34 or lymphatic metastasis($P<0.05$).

Conclusion: 1)There was overexpression of FAP in breast intraductal carcinoma, breast invasive ductal carcinomas. And no expression of FAP was found in the breast fibroadenoma and breast adenosis. It suggests that FAP is one of maker distinguishing the benign or malignant tumors. 2)A significantly positive correlation was found between FAP and CD34 or lymphatic metastasis.

Expression and Significance of p－Bad、p－Erk、p－Akt in Breast Cancer Progression

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Objective: To study expression and significance of p－Bad, p－Erk, p－Akt in normal breast tissue, breast usual intraductal hyperplasis tissue, mild－middle atypical hyperplasia, severe atypical hyperplasis and intraductal carcinoma in situ and invasive ductal carcinoma.

Methods: The expressions of p－Bad112/136 et al were examined in 131 paraffin－embedded specimens by immunohistochemcal staining and 27 freshly－taken tissues by Western Blotting. The relationship between the four proteins' expressions and clinicopathological factors was analyzed by Chi－square test and t－test.

Results: These four proteins immunoreactive staining was located in cytoplasm in breast carcinoma and none in stroma. And p－Erk, p－Akt were also located in nuclear. The four proteins expression positive rates showed gradual increases in breast cancer progression. And there was statistically significant difference of the four proteins expression positive rates between severe atypical hyperplasis and intraductal carcinoma in situ and invasive ductal carcinoma($p=0.034, 0.023, 0.001, 0.001$). There was also statistically significant difference of p－Bad112/136 expression positive rate between breast usual intraductal hyperplasis tissue and invasive ductal carcinoma($P=0.002/0.004$). There was no relationship between the four protein expressions and patients' age, clinical stage and tumor size. However, the four proteins had relations with histological grade($P=0.039, 0.026, 0.038, 0.026$ respectively), and the lower the histological grade was, the higher the positive tates of the four proteins expression were; p－Erk and p－Akt proteins expressions were also related to metastasis of armpit lymph node($P=0.041, 0.016$). Western Blotting analyses of the four proteins contents in breast invasive and adjacent

breast tissue showed there were significant increases of the four proteins expressions in breast cancer tissues compared with the adjacent breast tissues($P=0.002, 0.001, 0.002, 0.003$). And there was a positive correlation in protein contents between p－Bad112 and p－Erk($P=0.034$), and between p－Bad136 and p－Akt($P=0.020$).

Conclusion: The results strongly suggest that the level of the four protein should indicate the potential of metastasis to some extent and showed that MAPK/Erk, PI3K/Akt signaling cascades played an important role in breast cancer progression.

Analysis of p53 and bak gene mutations in lymphoproliferative disorders developing in rheumatoid arthritis

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Purpose: Individuals affected by rheumatoid arthritis(RA)occasionally develop lymphoproliferative disorders(RA－LPD). To study the molecular changes underscoring the RA－LPD, mutations of p53 and Bak gene were analyzed in RA－LPD with(MTX－LPD)or without methotrexate treatment for RA(non－MTX－LPD).

Methods: Histology and immunophenotype were immunohistochemically examined in 32 cases of MTX－LPD and 21 of non－MTX－LPD. Polymerase chain reaction －single strand conformation polymorphism(PCR－SSCP)followed by direct sequencing were employed to detect the mutations of p53 and Bak gene.

Results: Frequency of p53 mutations in non－MTX－LPD(47.6%)was significantly higher than that in MTX－LPD(15.6 %)($p<0.05$). Interval between the onset of RA and LPD development was significantly longer in LPD with p53 gene mutations(median 228 months)than that without mutations(133 months). LPD with p53 gene mutations had more advanced diseases and an unfavorable prognosis than those without mutations.

Conclusions: MTX－LPD and non－MTX－LPD shows similar findings in clinical characteristics, histology, Epstein－Barr virus(EBV)positive rate, and frequency of Bak gene mutations. Whereas the non－MTX－LPD is distinct from the MTX－LPD in its significantly higher p53 mutation frequency.

The Relationship of Survivin Protein Expression with Carcinogenesis and Progression of Gastric Carcinoma－A Study by Tissue－microarray

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Objective: To explore the relationship of surviving protein expression with the molecular mechanism of carcinogenesis and progression of gastric carcinoma.

Methods: Two blocks of tissue microarray were constructed, one containing 124 and another containing 101 small cylindrical samples, 1.0mm each in diameter, from 96 cases of gastric carcinoma and the precancerous lesions. The immunohistochemical stainning method was used to detect the survivin protein expression.

Results: The positive rate of survivin gene encoding protein in gastric cancer tissues was significantly higher than those in adjacent normal mucosa, intestinal metaplasia and dysplasia($P<0.01$). The positive rate of survivin protein expression in tumors with metastases was statistically higher than that in tumors without metastasis($P<0.05$), The expression of survivin was not related to the clincopathological stage, histological classification, lauren"s type and gross type of gastric cancer($P>0.05$).

Conclusions: Tissue microarray is a new powerful technique with a conspicuous characteristic of small volume rich in information in the tumor investigation. Survivin gene locked－up in normal human tissues is activated and involved in tumorigenesis and progression of gastrc cancers, and survivin can be a ideal marker for early diagnosis of gastrc carcinoma and the metastasis.

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Study on expression of PSMA and CD44v6 in human prostate cancer

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Objective: To study expression and significance of PSMA and CD44v6 in human normal prostate, benign prostatic hypertrophy and prostate cancer; to study the relationship between the expression and infiltration and metastasis in human prostate cancer.

Methods: We study the expression of PSMA and CD44v6 in 2 normal prostate, 44 benign prostatic hypertrophy and 58 prostate cancer by immunohistochemistry S－P method. Chi－squared test was used to clarify the relationship between the expression of PSMA and CD44v6 and clinical pathology characters. Spearman correlation analysis was used to clarify the relationship between the expression of PSMA and CD44v6 in prostate cancer.

Results: The expression of PSMA and CD44v6 occurs mainly in the cell membrane and cytoplasm of benign prostatic hypertrophy and prostate cancer. Of 44 benign prostatic hypertrophy samples, 25(56.82%)showed positive expression of PSMA. Of 58 prostate cancer samples, 41(70.68%)showed positive expression of PSMA. 2 normal prostate samples showed negtive expression. the positive expression ratio of PSMA in poor differentiation cancer, moderate differentiation cancer and well differentiation cancer were 42.86%, 75.00% and 83.33%. The expression of PSMA had associations with age($P = 0.037$), degree of differentiation($P = 0.423, 0.105, 0.024$) and lymph node metastasis($P = 0.000$). Of 58 prostate cancer samples, 43(74.14%)showed positive expression of CD44v6. The negative expression was showed in 2 normal prostate samples and 44 benign prostatic hypertrophy samples. We found that the positive expression ratio of CD44v6 in poor differentiation cancer, moderate differentiation cancer and well differentiation cancer were 92.86%, 90.00% and 50.00%. The expression of CD44v6 had associations with degree of differentiation($P = 0.005, 0.773, 0.007$) and lymph node metastasis($P = 0.008$). Of 58 prostate cancer samples, 37 showed positive expression while 11 showed negative expression of PSMA and CD44v6. 4 samples showed positive expression of PSMA but negative expression of CD44v6. 6 samples showed negative expression of CD44v6 but positive expression of PSMA. According to Spearman correlation analysis, we found that the expression of PSMA and CD44v6 had correlation($P = 0.571$).

Conclusion: The expression of PSMA in prostate cancer was higher than that of in benign prostatic hypertrophy. The expression of CD44v6 was high in prostate cancer while no expression in normal prostate and benign prostatic hypertrophy. The expression of PSMA and CD44v6 had associations with degree of differentiation and lymph node metastasis in prostate cancer. Furthermore, the expression of two proteinin prostate cancer had correlation.

The Expression and Significance of CDX2 in intestinal metaplasia of gastric mucosa

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AIM: WT]To inquire the role of CDX2 during the development of IM, by detecting the expression in different IM and the expression change of H. pylori infection, to discuss the significance of CDX2 in different IM.

Materials and Methods: Detecting the expression of CDX2 in 58 cases normal gastrica mucosa, 184 cases IM and 36 gastrica cancer by immunohistochemical method; classing the IM into three subtypes, IM I 81cases, IM II 62 cases and IM III 41 cases by HID－ABpH2.5－PAS methods ; detecting the H. pylori Ig G by ELISA methods in 184 cases IM, which divided into H. pylori－positive group 90 cases and H. pylori－negative group 94 cases.

Results: The positive rates of CDX2 expression in IM and gastric cancer were significantly higher than normal gastric mucosa, where were all negative($P < 0.01$). The positive rates of CDX2 expression of gastric cancer is lower than that of IM($P < 0.01$). The positive rates of CDX2 expression in IM I, IM II, IM III were decreased in sequence, there was significantly difference between IM I and IM III($P < 0.01$); there was difference between

IM II and IM III($P<0.01$). The positive rate of CDX2 expression in IM I and IM II had significantly difference compared with gastric cancer group($P<0.01$, $P<0.05$ respectively); while there were no difference between IM III and gastric cancer group. CDX2 was located in IM cellular nucleus. The positive rates of CDX2 H. pylori – positve groups IM were higher than H. pylori – negative groups ($P>0.05$).

Conclusions: The IM where no expression of CDX2 has carcerative potential, and has close relationship with gastric cancer. We can judge the differetiation of IM by CDX2.

An immunohistochemical analysis of pathogenicity of Helicobacter pylori on human gastric epithelia in the biopsy specimens diagnosed as Group – I(Non – neoplastic and non – atypical regenerative lesions)

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In order to see pathogenicity of Helicobacter pylori(HP) infection on the gastric mucosa, differences in cell proliferation, the supply of stem cells and programmed cell death were investigated by means of immunohistochemistry(IHC) between each 5 cases of biopsied gastric mucosal tissues with and without HP infection. The biopsied gastric mucosal tissues were diagnosed as Group – 1(non – neoplastic and non – atypical regenerative). it was judged on the H. &E. – stained specimens whether there was HP infection in the biopsied gastric specimens. Proliferating cells were labeled by anti – Ki67 amtigen antibody(MIB – 1). Progenitor cells were labeled by CD117. Apoptotic cells were labeled by anti – cleaved caspase – 3 antibody. Autophagy and autophagic cell death were labeled by supersensitive IHC of beclin – 1. Secretory function was labeled by supersensitive IHC of CD133. The study was performed under the consent of Kagoshima University Hospital ethics committee. Proliferating glandular epithelia labeled by MIB – 1 were seen sporadically in the fundic glandular portion besides in the neck portion. A few progenitor cells labeled by CD117 were noted in and around the neck portion in 4 out of 5 cases with HP infection($p=0.024$). Cleaved caspase – 3 – positive cells were recognized in the neck portion in a case with HP infection besides in the superficial foveolar portion. CD133 – and beclin – 1 – positive granules were noted in the glandular epithelia and especially at the cell apex at the fundic glandular areas. At the deep portion of the fundic glands in the cases with HP infection grouped autophagic cell death was found($p=0.024$) and grouped desquamation of the glandular epithelia was seen in the glandular lumen. Thus, the following pathogenicity of HP infection was indicated. HP infection propelled proliferation, accelerated apoptosis in the proliferating cells and supply of the progenitor cells at the neck portion, and induced autophagy ended in autophagic cell death. Nuclear expression of beclin – 1 suggesting for nuclear export failure of beclin – 1 was not recognized in these specimens. Therefore, proliferation and autophagic failures in the proliferating cells including progenitor and precursor cells under HP infection might be concerned with the HP – carcinogenesis.

Expression of HBME – 1 and RET in benign and malignant thyroid phthological changes

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Objective: To study the expression of HBME – 1 and RET in benign and malignant thyroid phthological changes, looking for valuable diagnostic markers to distinguish the benign lesions from the malignant ones.

Methods: By means of tissue chip technique and the immunohistochemical method, 22 cases of nodular goiters, 7 cases of thyroid adenomas, 47 cases of papillary carcinomas, 7 cases of undifferentiated carcinoma、5 cases of medullary thyroid carcinoma、4 cases of follicular thyroid carcinomas、1 cases of poorly differentiated insular carcinoma and 1 cases of squamous thyroid carcinoma were examed to detect the expression of HBME – 1 and RET.

Results: The positive rates of HBME－1 and RET were 67.69% and 26.15% in thyroid carcinomas. The positive rates of HBME－1 and RET were 10.34% and 0 in throid benign phthological changes.

Conclusion: The positive rates of HBME－1 and RET were increased in thyroid carcinomas. There is a significance in pathological diagnosis.

Clinicopathological Signaficance of the Expression of Tumor Supressor Gene Pten and Cell Apoptosis Key Factor Caspase－3 in Primary Malignant Gastric Lymphoma

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Background: Primary gastric malignant lymphoma is the second commonest malignant tumor of the stomach. So far the molecular mechanism of its development and progression is still unclear. There has been no objective and practical marker to evaluate the malignant degree of the tumor and prognosis of the patients.

Aim: To investigate the expression of a new tumor suppressor gene PTEN and caspase－3, a key factor of cell apoptosis, in primary malignant lymphoma of the stomach, and probe into the molecular mechanism of the development and biological behavior of primary malignant lymphoma.

Methods and Resoults: Fifty－six primary malignant gastric lymphoma were investigated by SABC immunohistochemical method using antibodies against PTEN protein and Caspase－3 respectively. The positive expression rate of PTEN in the primary gastric lymphomas(61.9%, 34/56)was significantly lower than that in the normal gastric mucosa(96.9%, 31/34), $P<0.005$; The expression of PTEN in gastric lymphoma was correlated with invasion and lymph node metastasis, $P<0.05$. The positive expression rate of Caspase－3 in primary malignant gastric lymphoma(76.8%, 43/56)was significantly lower than that in the superficial gastric mucosa(96.4%, 27/28)($P<0.05$), while higher than that in the normal gastric glands(35.7%, 10/28)($P<0.005$). Additionally, the PTEN expression was correlated with caspase－3 expression in the primary gastric lymphoma($P<0.005$).

Comcolusion: The down－regulated expression of PTEN gene may play an important role in the development and progression of malignant gastric lymphoma by influencing the activity of caspase－3 as along with the apoptosis of glandular epithelial cells of gastric mucosa.

BSA－AGE stimulates MMP－9 Activity and Expression via Isoprenoid Pathway

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Objective: Introduction Under the hyperglycemic condition, macromolecules can be induced into advanced glycation end product, which deposit in the vascular wall. Recent studies indicate that AGE plays an important role in atherogenesis. However, studies on the relationship between AGE and metalloproteinase are quite few. In this study, we observed the morphological changes of mouse peritoneal macrophages in AGE conditional medium, studied the activity/ expression changes of macrophage, and explored the relationship between AGE－induced MMP activation and plaque rupture. Furthermore, we ascertained the role of isoprenoid pathway by using isoprenoid pathway inhibitor(Statins)and its intermediate products(GGPP).

Method: After preparing BSA－AGE via incubation, fluorospectrophotometry and SDS－PAGE were applied for identification. Simvastatin cytotoxicity was excluded by MTT method. Mouse peritoneal macrophages were incubated with BSA －AGE(400 mg/L)and then morphological changes were observed. Macrophages were incubated with BSA－AGE at different levels(0、50、100、200、400 mg/L)and for different intervals(0、12、24、36、48h); furthermore, different levels of Simvastatin(5μmol/L, 50μmol/L)were applied to observe the inhibitory effect and then GGPP(10μmol/L)was added to determine the reversal effect on Simvatatin－induced inhibition. After collecting the cell culture supernatant, MMP－9 activity was determined by Gelatin Zymography and the expres-

sion by Western - blot. The intensity of immunoreactive bands was determined by scanning PVDF film and measuring the optical density as arbitrary units of integrated density value(IDV). All the data were analyzed by SPSS software 11.5.

Results: According to fluorospectrophotometry scanning, our incubation product showed the specific double - peak of AGEs. SDS - PAGE indicated that the electrophoresis rate changed as expected. MTT test excluded the possibility of Statin cytotoxicity in the MMP - 9 inhibition. AGE - BSA induced morphological changes of macrophage in vitro. After treatment of AGE - BSA(0, 50, 100, 200, 400 mg/L)for 48 hours, macrophage MMP - 9 increased significantly in contrast to the control, showing the dose - dependent effect($n=5$, $P<0.05$). After treatment of 400 mg/L AGE - BSA for different duration, MMP - 9 activity presented significant difference in contrast to the control, showing the time dependent effect($n=5$, $P<0.05$). Simvastain decreased MMP - 9 activity significantly, which was reversed by GGPP. Discussion Chronic hyperglycemia can induce protein non - enzymatic glycation to form advance glycation end products, which deposit in the vascular wall. On the other hand, AGEs can produce various pathogenic effects via AGE - Rage signal pathway. In this study, BSA - AGE was with the actual level of pathological condition in human body, namely, it doesn't exceed 400 mg/L.

Metalloproteinase play an important role in atherogenesis by degrading extracellular matrix. Recently, MMP - 9 becomes a hot issue in the aspect and is regarded as a crucial culminant in atherogenesis. Meanwhile, advanced glycation end product is preferentially distributed in rupture - prone area. Our experiment indicated that advanced glycation end product can activate macrophage to secrete MMP - 9 in time and dose dependent pattern. It further proved that AGE - induced MMP - 9 is involved in diabetic atherogenesis. Previous reports indicate that small GTPase is at the center of AGE - mediated signal transduction. Cytoplasmic small GTPase, an inactive molecule, should be acylated in order to be anchored to cell membrane, which is closely related to isoprenoid. In this study, we proved that Simvastatin(inhibitor of isoprenoid pathway)inhibited the AGE - induced MMP - 9 activity/expression and GGPP(isoprenoid)reversed this inhibitory effect of statins, indicating the crucial role of isoprenoid pathway in the AGE - induced MMP - 9 expression.

In all, advanced end product can activate macrophages and enhance MMP - 9 activity, which underlies the pathogenesis of diabetic complication. It also suggests inhibition of AGE production is a new therapeutic target of diabetic atherosclerosis. Our results suggest AGE - induced MMP - 9 expression is related isoprenoid pathway, but the detailed mechanism should be studied further.

Effects and correlation of Xinzhi Bimin capsule on expression of NF - κB and IL - 5 in the spleen tissue of experimental allergic rhinitis in rats

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To study the effect and correlation of Xinzhi Bimin capsule on expression of NF - κB and IL - 5 in the spleen tissue of experimental allergic rhinitis(AR)in rats, and identify the mechanism of pharmacodynamic action. The expression of positive cell of NF - κB was detected in semiquantity by immunochemistry and the expression of IL - 5 was detected in quantity by ELISA, which were compared with the different model rats established in AR and the normal control group. The expression of the proportion of positive cell to NF - κB and IL - 5 were lower in the experimental group than the model group($p<0.05$)and the positive control group except the normal control group, moreover, the level of IL - 5 in the experimental group was positively correlated to the proportion of positive cell to NF - κB. The result suggests that the capsule of Xinzhi Bimin can reduce the infiltration of EOS and treat the symptom of AR in rats by down - regulating the activation of NF - κB, inhibiting the expression of cytokines of Th2(such as IL - 5).

Protein expression and gene amplification of HER－2 and EGFR in colorectal cancers—an immunohistochemical and fluorescent in situ hybridization study

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Aims: To observe the protein expression of EGFR and C－erbB－2 as well as the status of their gene amplification in colorectal cancer, investigate the mechanism of protein expression and gene amplification and the significance of gene amplification in predicting target therapy in colorectal cancer.

Methods: 122 paraffin－embedded colorectal cancer specimens of resected specimen were collected. Detecting expressions of EGFR and C－erbB－2 in colorectal cancer by the method of SABC. 20 specimens, which EGFR and c－erbB－2 protein were positive by IHC, were analyzed by dual－color FISH. Selecting 10 specimens at random to be detect as negative control.

Results: EGFR protein was cytoplasmic and membrane staining in colorectal cancer. The positive rate was 44.26%. 11.48% was membrane stained. Most positive cancer cells were in nest pattern. The expression of EGFR was closely associated with histol－type($P<0.05$). Only three specimens were positive of C－erbB－2. The positive rate was 2.46%. Among them, high level expression was seen in two cases without EGFR expression. The other one was cytoplasmic staining of EGFR with cytoplasmic staining of c－erbB－2. 17 specimens, which EGFR and c－erbB－2 proteins were found membrane staining or cytoplasmic staining by IHC, were detected by dual－color FISH analysis. Gene amplification of EGFR could be seen in the only one specimen with IHC 3+. It had two kinds of gene amplification pattern which were DM and HSR. Two of nine cases with IHC2+ displayed signal of polysomy in nuclear but without amplification. Besides these, after analyzing three specimens with IHC 3+ of c－erbB－2 by FISH, we found the same pattern of HSR amplification in two cases with strong membrane staining. The amplification rate was 1.64% (2/122) in our study. There was no gene amplification in the specimen with IHC 1+.

Conclusion: EGFR and c－erbB－2 protein of EGFR family were lower expression in colorectal cancer. Gene amplification of EGFR and c－erbB－2 was one of mechanism in protein expression and was closely related to the tumor progression. Combining the methods of IHC and FISH to detect gene amplification and protein expression of EGFR and c－erbB－2, we can select the positive cases of EGFR family and then carry out individual therapy for the positive patients.

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