



IPA 8th WORLD CONGRESS  
OF PHOTODYNAMIC MEDICINE  
June 5-9

VANCOUVER

2001

*Clinical & Basic Applications of  
Photodynamic Medicine*

*New Visions for the  
New Century*

CONGRESS PROGRAM & ABSTRACTS

Hosted by the  
 International Photodynamic Association  
 The University of British Columbia  
 British Columbia Cancer Agency  
 Vancouver Hospital & Health Sciences Centre

## Table of Contents

### Sponsors

#### Platinum



#### Gold



#### Silver



#### Bronze



#### Contributors



**DUPLICATE Ophthalmology**

- 1 Message from the Congress
- 2 Key Addresses and Contacts
- 2 Committee
- 3 Schedule at a Glance
- 4 General Information
- 5 Visitor Information
- 7 Program Features
- 9 Social Program
- 9 Exhibitors
- 10 Congress Program Wednesday, June 6
- 14 Congress Program Thursday, June 7
- 18 Congress Program Friday, June 8
- 22 Congress Program Saturday, June 9
- 23 Posters
- 26 Abstracts
- 94 Author Index

## Message from \* the Congress

On behalf of the University of British Columbia, the British Columbia Cancer Agency, and the Vancouver Hospital and Health Sciences Centre, it is a pleasure to welcome you to Vancouver and the 8th IPA World Congress of Photodynamic Medicine.

The broad range of abstracts combined with our international panel of distinguished plenary speakers has allowed us to create a program that essentially covers the entire spectrum of photodynamic medicine today. We are truly grateful for the tremendous support we have been fortunate to receive from the PDT community.

In addition to the scientific program, we continue the IPA tradition of fabulous social functions where you will have the opportunity to network informally with long-time colleagues as well as new friends. We look forward to seeing you at both the reception and the closing banquet.

Finally we would like to recognize and thank our sponsors. It is through their generous support that a meeting such as this can be convened. We thank you for taking the time to join us in Vancouver, and look forward to an exciting exchange of science and medicine.

Welcome to Vancouver!



Stephen Lam, MD, FRCPC  
Congress President



Harvey Lui, MD, FRCPC  
Scientific Program Chair

### Congress and Exhibition Secretariat

Events by Design Inc.  
601 – 325 Howe Street  
Vancouver, BC  
Canada V6C 1Z7

**Phone** 604.669.7175

**Fax** 604.669.7083

**Email** [info@ebd.bc.ca](mailto:info@ebd.bc.ca)



### Congress Web Site

[www.dermweb.org/pdt2001](http://www.dermweb.org/pdt2001)

### Honorary Presidents

Yoshihiro Hayata

Thomas Dougherty

### Congress President

Stephen Lam

### Congress Vice-President

Harvey Lui

### Scientific Committee

Harvey Lui

(Chair, Canada)

Stephen Lam (Canada)

Glenn M. LaMuraglia  
(USA)

Rox Anderson (USA)

Kazuhiko Atsumi (Japan)

Goh Chee Leok  
(Singapore)

Patrick Barron (Japan)

Clifford Leznoff (Canada)

Robert Bissonnette  
(Canada)

Norman Marcon (Canada)

Stephen Bown (UK)

David McLean (Canada)

Neil Bressler (USA)

Johan Moan (Norway)

Stanley Brown (UK)

Ronald Moore (Canada)

Denis Cortese (USA)

Paul Muller (Canada)

David Cramb (Canada)

Shigeru Okuda (Japan)

Eric Edell (USA)

Thierry Patrice (France)

Frank Gasparro (USA)

Michael Patterson  
(Canada)

Charles Gomer (USA)

Roy Pottier (Canada)

Tayyaba Hasan (USA)

Philip Rosenfeld (USA)

York Hsiang (Canada)

Willem Star (Netherlands)

Steven Jacques (USA)

Katarina Svanberg  
(Sweden)

Giulio Jori (Italy)

Tom Sutedja (Netherlands)

Harubumi Kato (Japan)

John Tulip (Canada)

Andrew Kaye (Australia)

Michael Unger (USA)

Jim Kennedy (Canada)

Hubert Van den Bergh  
(Switzerland)

David Kessel (USA)

Mladen Korbelik (Canada)

Johan van Lier (Canada)

Herwig Kostron (Austria)

Brian Wilson (Canada)

## Schedule at a Glance

DATE	Tuesday, June 5	Wednesday, June 6	Thursday, June 7	Friday, June 8	Saturday, June 9
07:00			<b>Interest Group Breakfast</b> 07:00 – 08:15 pre-registration required		
07:30					
08:00					
08:30		<b>Official Introduction/Welcome Plenary</b> 08:30 – 10:00 • Opening Overview • Establishment of the IPA • Keynote Address • AE Profio Memorial Lecture	<b>Plenary 3</b> 08:30 – 10:00 • Photosensitizer • Light Sources • Dosimetry	<b>Plenary 5</b> 08:30 – 10:00 • Mechanisms of Action of PDT – Cellular Mechanisms • Molecular Mechanisms Moving to Clinical Treatments • Cardiovascular PDT	<b>Plenary 7</b> 08:30 – 09:30 • Upper GI PDT • Immune Modulation
09:00	<b>Satellite Meeting</b> 09:00 – 11:00				
09:30	hosted by Berlex Laboratories Inc.				
10:00	<b>The Emerging Role of 5-Ala PDT in Dermatology</b>	<b>Break/Exhibits/Posters</b> 10:00 – 10:30	<b>Break/Exhibits/Posters</b> 10:00 – 10:30	<b>Break/Exhibits/Posters</b> 10:00 – 10:30	<b>Break</b> 09:30 – 10:00
10:30		<b>Plenary 2</b> 10:30 – 12:00 • Regulatory Issues in PDT • Clinical Applications of PDT in Ophthalmology • Gynecology	<b>Plenary 4</b> 10:30 – 12:00 • Clinical Applications of PDT in Thoracic Medicine • Clinical Applications of PDT in Dermatology • Photodynamic Diagnosis and Photodynamic Therapy of Brain Tumors	<b>Plenary 6</b> 10:30 – 12:00 • PDT in Urology • Clinical Applications of PDT in Biliary and Pancreatic Diseases • Head and Neck Cancer	<b>Plenary 8</b> 10:00 – 12:00 • Drug Discovery and Clinical Trials
11:00					
11:30					
12:00		<b>Lunch Break Exhibits/Posters</b> 12:00 – 13:30	<b>Lunch on the Exhibit Floor, and IPA AGM with lunch</b>	<b>Lunch Break/Exhibits/Posters</b> 12:00 – 13:30	
12:30				<b>Visudyne™ Session</b> 12:00 – 13:15 • Visudyne™ Therapy for the Treatment of Wet Age-Related Macular Degeneration pre-registration was required	
13:00	<b>Satellite Meeting</b> 13:00 – 15:00				
13:30	hosted by Axcan Scandipharm Inc.	<b>Concurrent Symposia</b> 13:30 – 15:00 • Cardiovascular • Light Sources & Delivery (1 of 2) • Ophthalmology (1 of 2) • Thoracic • Mechanisms of Action (1 of 3)	<b>Concurrent Symposia</b> 13:30 – 15:00 • Dermatology (1 of 2) Non-Oncologic • Mechanisms of Action (2 of 3) • Upper GI (1 of 2) • Dosimetry (1 of 2) • Urology/Gynecology (1 of 2)	<b>Concurrent Symposia</b> 13:30 – 15:00 • Dermatology (2 of 2) • Infectious Diseases/Topical PDT (1 of 2) • Optical Diagnosis (2 of 2) • Photosensitizers (3 of 3) • Urology/Gynecology (2 of 2)	
14:00	<b>Photodynamic Therapy: Gastrointestinal Applications</b>				
14:30					
15:00		<b>Break/Exhibits/Posters</b> 15:00 – 15:30	<b>Break/Exhibits/Posters</b> 15:00 – 15:30	<b>Break</b> 15:00 – 15:30	
15:30		<b>Concurrent Symposia</b> 15:30 – 17:00 • Ophthalmology (2 of 2) • ENT • Advances in PDT • Photosensitizers (1 of 3) • Light Sources & Delivery (2 of 2)	<b>Concurrent Symposia</b> 15:30 – 17:00 • Optical Diagnosis (1 of 2) • Biliary/Pancreatic/Lower GI • Neurosurgery • Photosensitizers (2 of 3) • Upper GI (2 of 2)	<b>Concurrent Symposia</b> 15:30 – 17:00 • Regulatory Issues & Outcomes Research in PDT • Topical PDT (2 of 2) • Immunomodulation • Mechanisms of Action (3 of 3) • Dosimetry (2 of 2)	
16:00	<b>Satellite Meeting</b> 16:00 – 18:00				
16:30	hosted by QLT Inc.				
17:00	<b>Expanding Horizons in PDT</b>				
17:30					
Evening		<b>Welcome Reception</b> 18:45 Buses leave from Melville St. entrance		<b>Banquet</b> 19:00	

## General Information

### Congress Badges and Tickets

Official Congress badges will be required for admission to all scientific and social functions. If you are bringing a guest to either the Welcome Reception or the Closing Banquet, they will require a ticket, but not a badge. If you require a ticket please check with the Congress Registration Desk for availability.

### Key Contacts

#### **Hyatt Regency Vancouver**

655 Burrard Street

Telephone 604.683.1234

Hotel Guest Fax 604.689.3707

#### **Messages**

Please call the Hyatt and ask for the IPA Registration Desk

#### **General Travel Information**

Vancouver Bus Depot 482.8747

Weather Information 664.9010

BC Ferries 1.888.223.3779

Vancouver Airporter Bus 946.8866

Tourism Vancouver 683.2000

### Delegate Services

#### **Registration Desk**

The Congress Registration Desk will be open the following hours:

Tuesday	8:00AM – 6:00PM
Wednesday	7:30AM – 6:00PM
Thursday	7:30AM – 5:00PM
Friday	7:30AM – 5:00PM
Saturday	7:30AM – 10:00AM

### Speaker Centre

If you are giving an oral presentation, please check in with the Speaker Centre prior to your presentation. The Speaker Centre is located in the King George Room and will be open the following hours

Tuesday	11:00AM – 6:00PM
Wednesday	7:30AM – 5:00PM
Thursday	7:30AM – 5:00PM
Friday	7:30AM – 5:00PM
Saturday	7:30AM – 12:00NOON

### Exhibit

All refreshment breaks will take place inside the exhibit area beside the Plenary Room when it is open.

Wednesday	9:30AM – 4:00PM
Thursday	9:30AM – 4:00PM
Friday	9:30AM – 11:00AM

### Poster Viewing

Posters highlighting the latest developments and ongoing research from around the world will be available for viewing throughout Wednesday and Thursday, and until noon on Friday. All posters will be on the 3rd Floor of the Hyatt Regency Vancouver.

### CME Accreditation

The Division of Continuing Medical Education (CME), University of British Columbia is accredited to sponsor continuing medical education for physicians by both the Committee on Accreditation of Canadian Medical Schools (CACMS) and the Accreditation Council for Continuing Medical Education (ACCME) of the United States.

### Meals and Snacks

There are a wide range of restaurants and food fairs located throughout the downtown core including Royal Centre Mall and Food Fair which is attached to the host hotel. You will find a range of choices from inexpensive snacks to fine dining in close proximity to the hotel. The Congress Registration Desk and the hotel concierge will both be pleased to assist you.

### Banking/Foreign Exchange

Several major financial institutions and currency exchanges are available within blocks of the hotel and are easily found. Automatic Teller Machines are available at nearby banks for those delegates wishing to use bank cards.

The Canadian monetary system is decimal-based. One hundred cents equals one dollar. Visitors are advised to exchange their currency at a bank or foreign exchange outlet, to ensure they receive the prevailing rate of exchange. Most shops and services will cash travelers cheques, exchange US\$ currency, and accept all major credit cards, but it is advisable to have Canadian cash on hand for taxis and other incidentals. Due to continuously fluctuating rates of exchange we encourage you to check with the Foreign Exchange service or a bank for the current rate.

### Lost and Found

Please contact the Registration Desk where staff will assist you in connecting with lost items.

### Message Centre

Messages may be left for delegates on the Message Board in the Registration area or by calling (604) 683-1234 and asking for the Congress Registration Desk during the registration hours.

### Tourism Vancouver

For extensive information on the Vancouver area, please visit the Tourism Vancouver Visitor Centre located 4 blocks from the hotel at 200 Burrard Street.

### Transport to/from the Airport

#### *Airport Express*

Buses depart from various major downtown hotels for the Vancouver International Airport on a regular basis. The ride takes 20 - 40 minutes depending on traffic and your starting point. Current cost is \$10 one way or \$17 return (return tickets are valid for six months from time of purchase). Please check with your hotel concierge or call 946.8866 for more information.

### Dress

Vancouver has developed a reputation for being a casual city, making most forms of clothing acceptable for almost any occasion. Suitable Conference attire could be characterized as business or smart-casual. For the Closing Banquet, business or cocktail attire is suggested.

### Time Zone

In June, Vancouver's clocks are on Pacific Daylight Time, Greenwich Mean Time (GMT) plus 8 hours.

Toronto	+3
London	+8
Tokyo	+17
Sydney	+17
Cairo	+10



### Electric Current

Electricity is supplied at 110V - 60Hz AC. Remember to use adapters if required.

### Smoking Policy

Vancouver by-laws specify that smoking is not permitted in public places including restaurants. Smoking is not permitted in the Conference venues. However, many outdoor terraces and concourses are available close to Conference events.

### GST Rebates

The Goods and Services Tax (GST) is a seven percent tax on most goods and services sold or provided in Canada. Under the Visitor Rebate Program, non-resident visitors may qualify for a foreign tourist rebate of the tax for short-term accommodation and goods that you take home (up to CDN\$500.00). Refund Applications for visitors will be available at Canada Customs offices, most tourism information centres as well as some hotels and retail stores.

### Airport Improvement Fee

Passengers departing Vancouver International Airport are required to purchase an Airport Improvement Fee (AIF) ticket. AIF tickets can be purchased from the automatic teller sales machines or AIF Passenger Booths located throughout the airport. Payment can be made in cash (Canadian or American) or by VISA, MasterCard or by some bank debit cards. Travelers are charged \$5 for travel within British Columbia, \$10 for travel to other N. American destinations and \$15 for travel outside N. America.

### Shopping

Most stores, boutiques and department stores are open from 9:00 or 9:30AM to 6:00PM on weekdays. On Thursdays and Fridays, most stay open until 9:00PM and on Saturdays until 5:00PM. Most stores are open on Sundays from 12:00 to 5:00PM.

Vancouver, with its unique cultural and ethnic diversity, offers a wide variety of exciting shopping opportunities. Native Westcoast Indian arts and crafts, including gold and silver jewellery, carved in traditional native motifs, are among the more unique artistic products. Also renowned are jade sculptures and jewellery, whalebone scrimshaw carvings and Cowichan Indian sweaters. Specially prepared and packaged seafood, particularly smoked salmon, are popular gift items. Our Chinatown, the second largest in North America, is a bustling community with hundreds of shops and curios where merchants sell authentic Chinese crafts and products. Vancouver also offers high fashion clothing and jewellery boutiques, representing some of the most famous designers in the world. Many of these are centred on Robson Street adjacent to major downtown hotels, the Sinclair Centre adjacent to the cruise ship dock and convention centre, and other downtown areas. For an alternative shopping experience, Vancouver has a number of public markets. Granville Island Market, Lonsdale Quay in North Vancouver and New Westminster Quay all offer local produce, fresh seafood and products fashioned by local artisans. Inquire at the Congress Desk for more details.



## Program Features

### Satellite Meeting hosted by Berlex Laboratories Inc. Tuesday, June 5, 0900 – 1100

#### ***The Emerging Role of 5-ALA PDT in Dermatology***

Chairs: Colin A. Morton & Allan Oseroff

5-aminolevulinic acid has been investigated in dermatological indications for many years. Now, the first commercially available topical photosensitizer 5-ALA solution (Levulan®) has been registered for the treatment of actinic keratoses. This symposium will present an overview of the clinical data of Levulan and will give an outlook on the broad range of potential applications of 5-ALA PDT in dermatology.

Stan B. Brown – The Advantages of 5-Ala and 5-Ala its Derivatives in Dermatology

Rolf-Markus Szeimies – Institutional Overview of PDT (and PD) in Dermatology: The Regensburg Experience

Edward W.B. Jeffes III – Levulan®, the First Topical Photosensitizer for the Treatment of Aks

Colin A. Morton – Is PDT Superior to Standard Treatments?

Allan Oseroff – Future Applications of PDT in Dermatology: The Roswell Park Experience

### Satellite Meeting hosted by Axcan Scandipharm Inc. Tuesday, June 5, 1300 – 1500

#### ***Photodynamic Therapy: Gastrointestinal Applications***

Chair: Prof. François Martin, MD

This symposium will present efficacy and safety data of photodynamic therapy with Photofrin® in gastrointestinal indications. In addition some candidate application will be presented.

B.F. Overholt, MD – Long-term Follow-up on Photofrin/PDT Treatment of Barrett's Esophagus

Charles Lightdale, MD – Photofrin/PDT in the Treatment of Obstructive Esophageal Cancer

Maria Anne E.J. Ortner, MD – Photofrin/PDT in the Treatment of Cholangiocarcinoma

Greg Haber, MD – Future Applications of Photofrin/PDT in Other GI Conditions

### Satellite Meeting hosted by QLT Inc. Tuesday, June 5, 1600 – 1800

#### ***Expanding Horizons in PDT***

Chair: Mohammad Azab

Over the past several years, extensive research has been conducted to evaluate photodynamic therapy for treatment of conditions in oncology, ophthalmology, autoimmunity and cardiology. This symposium is designed to acquaint PDT researchers and practitioners from a broad spectrum of fields with the wide-ranging research and development efforts that have been undertaken using verteporfin and other photosensitizers.

Dr. Mohammad Azab, MD and Senior Vice-President, Clinical Research and Medical Affairs for QLT will chair this symposium, during which a panel of distinguished physicians and scientists will present information on preclinical and clinical studies that have recently been conducted within these four areas.

The presentation agenda is as follows:

16:00 – 16:30

Michael J. Potter, MD – Visudyne™ Therapy for the Treatment of Classic and Occult Choroidal Neovascularization in Age-related Macular Degeneration  
*The wet form of age-related macular degeneration (AMD) is the leading cause of legal blindness in people over the age of 50 in the Western world. Results from the TAP and VIP studies have demonstrated a significant treatment effect for verteporfin therapy in patients with predominantly classic and occult CNV lesions. Two year follow-up from both trials will be presented.*

16:30 – 16:50

David Saperstein, MD – Clinical Trials Using Visudyne™ Therapy for Choroidal Neovascularization Secondary to Pathologic Myopia (VIP - PM Trial) and Ocular Histoplasmosis Syndrome (VOH Trial)  
*In this session, the effects on visual acuity of patients with subfoveal choroidal neovascular membranes (CNV) in pathologic myopia (PM) and ocular histoplasmosis syndrome (OHS) who were treated with verteporfin will be presented.*

## Program Features

16:50 – 17:05

Sandra Gollnick, PhD – Photodynamic Vaccination: Review and Data Presentation

*One of the potential advantages of photodynamic therapy over other types of cancer treatment is its ability to enhance the host anti-tumor immune response. Studies that have sought to exploit the ability of PDT to enhance tumor immunogenicity by using PDT-generated tumor cell lysates as tumor vaccines have shown that PDT vaccines are effective at suppressing subsequent tumor growth via the generation of tumor specific T-cells.*

17:05 – 17:20

Nancy Oleinick, PhD – PDT in Signal Modulation and Apoptosis: Review and Data Presentation

*Photodynamic therapy produces localized oxidative damage in cells at or near the intracellular site of photosensitizer binding, resulting in oxidative stress that is highly efficient at activating cellular signaling pathways and prompt apoptosis. This presentation will review the evidence for the intersection of constitutive and PDT-regulated pathways in PDT-induced apoptosis.*

17:20 – 17:30

Philippe Margaron, PhD – Review of PDT in Cardiovascular Medicine

*Researchers have explored photodynamic therapy as a modality for the reduction and stabilization of atherosclerotic plaques and the inhibition of intimal hyperplasia, and a number of clinical trials are underway. This presentation will first summarize the scientific rationales for PDT in cardiovascular applications before reviewing the approaches being investigated today by the groups actively working in this field.*

17:30 – 17:40

Harvey Lui, MD – Review of Verteporfin PDT in Skin Cancer

*Historically PDT was first used for treating patients with skin tumors, and this has been the case with verteporfin as well. Early studies of patients with non-melanoma skin cancer confirmed the short duration of systemic photosensitivity with verteporfin, while demonstrating the potential for effective control of primary and metastatic skin tumors. More recent studies have been designed to explore the role of verteporfin-based PDT in patients with multiple skin tumors in terms of both tumor eradication and cosmetic outcome.*

17:40 – 18:00 Q & A

## Plenary Sessions

Each morning will feature two plenary sessions, each highlighting a clinical or basic aspect of photodynamic medicine. These talks will be given by leaders in the field, many of whom pioneered groundbreaking research. We will also look to the future expectations in this exciting field.

## Concurrent Sessions

The afternoon sessions will provide in-depth information for specialists as we focus on specific areas of photodynamic medicine and its uses, challenges and successes.

## Interest Group Breakfast Thursday, June 7th, 7:00AM

Join colleagues for this informal gathering over breakfast and share your experiences. Tickets are available at the Congress Registration Desk.

## Social Program

### Welcoming Reception: A Taste of Vancouver Wednesday June 6

Buses leave from 6:45PM to 7:10PM at the Melville Street entrance of the Hyatt Regency Vancouver

The Vancouver Aquarium and Marine Science Centre is spectacular. You can look forward to an evening of fine food while exploring the exhibits and meeting new friends and old colleagues. Delegate registration includes this evening, if you require guest tickets please see the Congress Registration Desk.



### Official Gala Banquet Friday June 8, 7:00PM

#### *Hyatt Regency Ballroom*

Our traditional banquet will take place at the Hyatt and will feature a sumptuous Chinese Banquet, entertainment and dancing. Delegate registration includes this special evening and guest tickets may be purchased at the Registration Desk until Wednesday at 5:00PM.

## Exhibitors

**Exposition Dates**      **June 6 – 8**  
(Wednesday morning to Friday at 13:00)

### List of Exhibitors

- Axcan Scandipharm Inc.** 22 Inverness Center Parkway  
Birmingham, AL 35242  
Tel: 205.991.8085  
[www.photofrin.com](http://www.photofrin.com)
- Berlex Laboratories Inc.** PO Box 1000  
Montville, NJ 07045-2470  
Tel: 888.237.5392  
[www.berlex.com](http://www.berlex.com)
- biolitec Inc** 515 Shaker Road  
East Longmeadow, MA 01028  
Tel: 413.525.0600  
[www.biolitec.com](http://www.biolitec.com)
- Charles River Laboratories** 251 Ballardvale Street  
Wilmington, MA 01887  
Tel: 978.658.6000  
[www.criver.com](http://www.criver.com)
- Diomed Limited** Cambridge Research Park  
Ely Road, Cambridge UK  
Tel: 44.1223.729300
- US: 23 Main Street, Suite 240  
Andover, MA 01810  
Tel: 1.978.475.7771  
[www.diomed-lasers.com](http://www.diomed-lasers.com)
- LumaCare™** Ci-Tec UK Ltd.  
78 York Street  
London UK  
Fax: 44.207.724.7675
- Optiscan** PO Box 1066  
Mt. Waverley MDC  
Victoria 3149, Australia  
Tel: 61.3.9538.3333  
[www.optiscan.com](http://www.optiscan.com)
- QLT Inc.** 887 Great Northern Way  
Vancouver, BC, Canada  
V5T 4T5  
Tel: 604.872.7881  
[www.qltinc.com](http://www.qltinc.com)

## Congress Program • Wednesday, June 6

### 08:15 – 10:00 **Official Introduction / Welcome Plenary** **Regency Ballroom**

	<i>Chair:</i> Stephen Lam	
08:15 – 08:25	<i>Welcome</i>	Stephen Lam
08:25 – 08:45	<i>Opening Overview</i>	John Cairns Brian Schmidt Bernie Bressler
08:45 – 09:00	<i>Establishment of the IPA</i>	Yoshihiro Hayata
09:00 – 09:30	<i>Keynote Address</i>	Stephen Bown
09:30 – 10:00	<i>AE Profio Memorial Lecture</i>	Bruce Tromberg

### 10:00 – 10:30 **Refreshment Break/Exhibits/Posters** **Regency East**

### 10:30 – 12:00 **Plenary 2** **Regency Ballroom**

10:30 – 11:00	<i>Regulatory Issues in Photodynamic Therapy</i>	Richard Felten
11:00 – 11:30	<i>Clinical Applications of PDT in Ophthalmology</i>	Neil Bressler
11:30 – 12:00	<i>Gynecology</i>	Pius Wyss

### 12:00 – 13:30 **Lunch Break/Exhibits/Posters** **Regency East**

### 13:30 – 15:00 **Concurrent Symposia**

#### **Plaza East** **Cardiovascular (1 of 2)**

*Chairs:* Kathryn Woodburn & Robert Grove

13:30 – 13:50	Intracoronary Photopoint™ Therapy for Restenosis	Ian Leitch
13:50 – 14:10	Antrin Photoangioplasty: Initial Human Experience and Results of a Phase I Trial as Adjuvant Therapy to Intracoronary Stent Implantation	T.M. Chou
	<i>Abstract Chairs:</i> Glenn M. Lamauraglia & York Hsiang	
14:10 – 14:20	The PhotoPoint Catheter Based System for the Treatment of Intimal Hyperplasia	Steve Rychnovsky
14:20 – 14:30	Photodynamic Inhibition of Intimal Hyperplasia in a Swine Arteriovenous Fistula Model	Beth Allison
14:30 – 14:40	Endovascular Photodynamic Therapy with Aminolaevulinic Acid Inhibits Balloon Induced Stenosis in Rat Illiac Arteries	Edward E.E. Gabeler
14:40 – 14:50	Arterial-Type Dependent Differences in the Aminolaevulinic-Acid-Induced Accumulation of Protoporphyrin IX Determine the Timing For Photodynamic Therapy	Edward E.E. Gabeler
14:50 – 15:00	Tips Plus PDT: A Pilot Study of Intimal Hyperplasia Prevention	P. Jack Hoopes

#### **Plaza Centre** **Light Sources and Delivery (1 of 2)**

*Chairs:* Willem Star & Dan Doiron

13:30 – 13:45	Parametric Study of Short Excitation Pulses on PDT Effects In Vitro with PAD-S31: Measurements of Oxygen Consumption and Photobleaching	Satoko Kawauchi
13:45 – 14:00	A Novel Diode Laser System for Photodynamic Therapy	Eva Samsoe Andersen
14:00 – 14:15	The Effect Of Pulsed Laser In PDT In Vitro	J.Y. Chen
14:15 – 14:30	Dynamic Behaviour of Photosensitizers After Multiphoton Excitation	David T. Cramb

13:30 – 15:00

**Concurrent Symposia****Balmoral Room****Ophthalmology (1 of 2)***Chairs:* Neil Bressler & Michael J. Potter

13:30 – 13:55	Current Benefits of Ocular Photodynamic Therapy with Verteporfin to Manage Choroidal Neovascularization	Neil Bressler
13:55 – 14:20	On-Going Clinical Trials Evaluating Ocular Photodynamic Therapy with Verteporfin to Manage Choroidal Neovascularization	Michael J. Potter
14:20 – 14:35	Optimized Light Dosimetry in Photodynamic Therapy of Choroidal Neovascularization	Reginald Birngruber
14:35 – 14:50	Development of Verteporfin for the Treatment of Neovascular Age-Related Macular Degeneration (AMD): Lessons Learned	Julia G. Levy
14:50 – 15:05	Modulation of Photodynamic Therapy with Anti-Angiogenic Agents and Other Strategies	Reem Z. Renno

**Plaza West****Thoracic***Chairs:* Tetsuya Okunaka & Tom Sutedja

13:30 – 13:45	The significance of fluorescence imaging in lung cancer. Autofluorescence Versus Added Photosensitizer	Tetsuya Okunaka
13:45 – 14:00	PDT with Nd-YAG Laser Therapy for Lung Cancer	J.S. McLaughan Jr.
14:00 – 14:10	Phase II Clinical Trial of PDT Using ME2906 and Diode Laser in the Treatment of Central Type Early Stage Lung Cancer in Japan	Kinya Furukawa
14:10 – 14:20	Intrathoracic Photodynamic Therapy on Pleural-Based Mesothelioma in Rats	Thorsten Krueger
14:20 – 14:30	10 Years Experience In Endoscopic Photodynamic Therapy (PDT) For Inoperable Cancer Of The Aero-Digestive Tract: The Lesson Learnt	Keyvan Moghissi
14:30 – 14:40	Has Bronchoscopic Photodynamic Therapy (PDT) Any Place In Bronchopulmonary Cancer Treatment?	Keyvan Moghissi
14:40 – 14:50	Photodynamic Therapy: An Integral Component of Multi-Modality Treatment for Bronchogenic Carcinoma	Patrick Ross
14:50 – 15:00	Clinical Experience with Safe 1000 Pentax Autofluorescence Bronchoscopy system in Early and Invasive Lung Cancer (First year experience)	Lamberto Toniolo
15:00 – 15:10	Autofluorescence-Guided Bronchoscopic Biopsy for Localization of Pre-Malignant Lesions and Cancer Foci within Bronchi	Mariusz Adamek

**Regency Ballroom****Mechanisms of Action (1 of 3)***Chairs:* Barbara W. Henderson & Nancy L. Oleinick

13:30 – 13:50	Tissue Responses to PDT	Barbara W. Henderson
13:50 – 14:10	Mechanisms of PDT Cell Killing	Nancy L. Oleinick
14:10 – 14:22	A Mathematical Evaluation of Dose Dependent PpIX Fluorescence Kinetics In Vivo	HJCM Sterenborg
14:22 – 14:34	Tissue Temperature and Po <sub>2</sub> Measurements Using Planar Optical Sensors In Vivo	Christoph Abels
14:34 – 14:46	Fas (CD95) Dependent Mechanisms of Cell Death Following DNA Damage in Human Nasopharyngeal Carcinoma Cells Using Hypocrellins	S.M. Ali
14:46 – 15:00	Analyses of Cellular Activity After PDT with AIPc <sub>4</sub>	Renato Amaro Zângaro

15:00 – 15:30

**Afternoon Break/Exhibits/Posters****Regency East**

15:30 – 17:00

**Concurrent Symposia**

**Balmoral Room**

**Ophthalmology (2 of 2)**

*Chair:* Michael J. Potter

15:30 – 15:45	2. Generation of PDT-Lasers for the Treatment of Wet AMD	Stefan Spaniol
15:45 – 16:00	In Vitro Photodynamic Effects of ATX-S10(Na) and Mode of Cell Death on Vascular Endothelial Cells	Yuko Gohto
16:00 – 16:15	Subcellular Localization of Three Photosensitizers in Vascular Endothelial Cells	Akira Obana
16:15 – 16:30	Evaluation of New Photosensitizer MV6401 In a Series of Ophthalmic Neovascularization Models	Wendy J. Snyder
16:30 – 16:45	Improvements in Laser Technology for Ocular Photodynamic Therapy with Verteporfin	Hubert van den Bergh

**Plaza East**

**ENT**

*Chairs:* Phillipe Monnier & Colin Hopper

15:30 – 15:40	Experimental Animal Study of 5-Aminolevulinic Acid Induced Photodynamic Therapy of Oral Cancer	B. Rings
15:40 – 15:50	Clinical Effects of Treating Recurrent Laryngeal Papillomatosis With Photodynamic Therapy Using m-THPC (FOSCAN)	Allan L. Abramson
15:50 – 16:00	Combined Fluorescence Diagnosis (Autofluorescence and 5-ALA Induced PPIX-Fluorescence) for the Detection and Demarcation of Oral Cancer	Christian Betz
16:00 – 16:10	The Use of Intravenous 5-Aminolaevulinic Acid in Photodynamic Therapy and in Fluorescence Imaging for Head and Neck Cancer and Precancer	Hiroaki Nakanishi
16:10 – 16:20	Targeting the Treatment Volume in Head and Neck Cancer	Graham D. Putnam
16:20 – 16:30	Raman Spectroscopy as a Means of Optical Biopsy in Normal and Cancerous Tissue of the Nasopharynx	David Lau
16:30 – 16:40	Photofrin-Mediated Photodynamic Therapy for Treatment of Early Stage Oral Cavity and Laryngeal Malignancies	Vanessa Gayl Schweitzer
16:40 – 16:50	Performance Characteristics of Laser-Induced Fluorescence Endoscope in Detection of Head and Neck Cancers	Vipa Boonkitticharoen
16:50 – 17:00	Fluorescence-Guided Biopsy in the Diagnosis of an Unknown Primary Cancer in Patients with Metastatic Cervical Lymph Nodes	Boonchu Kulapaditharom
17:00 – 17:10	Clinical Response to Photodynamic Therapy of Premalignant Lesions and Advanced Head and Neck Carcinomas	Maciej Misiolek

**Regency Ballroom**

**Advances in PDT**

*Chairs:* Heinrich Walt & Thierry Patrice

15:30 – 15:50	Oral Aminolevulinic Acid for Systemic Breast Tumor Diagnosis	Heinrich Walt
15:50 – 16:10	Why is ALA-PDT Tumor-Selective?	Li-Wei Ma
16:10 – 16:20	Quantification and Specification of Postischemic Reperfusion Injury of Human Allogenic Kidney and Pancreas Transplants	Helmut P. Arbogast
16:20 – 16:40	Fluorescence Diagnosis with ALA-Induced Porphyrins (FDAP) in Dermatology	Clemens Fritsch
16:40 – 17:00	Optimizing the Esters of ALA – in Vitro and in Organ Culture	Hubert van den Bergh
17:00 – 17:12	Anti-Tumor Vascular Effects of Photodynamic Therapy MV6401	Dennis Dolmans



15:30 – 17:00

**Concurrent Symposia****Plaza West      Photosensitizers (1 of 3)***Chairs:* Stan Brown & David Kessel

15:30 – 15:50	Thiazine Photosensitizers	Stan Brown
15:50 – 16:10	Photosensitizers - A Review of the Options	David Kessel
16:10 – 16:20	Clinical Application of a New Surgical Strategy Using Photodynamic Therapy With Acridine Orange to Malignant Soft Tissue Tumors	Katsuyuki Kusuzaki
16:20 – 16:30	A Photodynamic Pathway to Apoptosis Induced by Polycyclic Aromatic Ketone (Hypericin) in Human Mucosal Cell Lines: Possible Relevance to Photodynamic Therapy	S.M. Ali
16:30 – 16:40	In Vitro and In Vivo Behaviour of BPD Related Compounds	Ron Boch
16:40 – 16:50	Hydroxy Diphenyl Chlorins and Bacteriochlorins – Versatile PDT Photosensitizers	R.W. Boyle
16:50 – 17:00	Enhanced Phototoxicity of Cationic Sulfonamide Derivatives of Benzochlorin and Porphycene With Nasopharyngeal Cancer Cells	C.K. Chang

**Plaza Centre      Light Sources and Delivery (2 of 2)***Chairs:* Tom Mang & David Cramb

15:30 – 15:42	Model Calculation on the Efficiency of PDT by Pulsed Laser Application	Hans-Jochen Foth
15:42 – 15:54	Photodynamic Therapy Using Lowly Sinusoidal Modulated Thermal Red Light	Heinrich Kolbabeck
15:54 – 16:06	Interstitial Photodynamic Therapy – Results from Treatments and Dosimetry Measurements	Stefan Andersson-Engel
16:06 – 16:18	Novel System for Integrated Interstitial Photodynamic Therapy, Dosimetry Measurements and Prediction of Treatment Outcome	Marcelo Soto Thompson
16:18 – 16:30	Reinforcement of Therapeutic Efficacies for Malignant Tumors Using Low Power Laser Preirradiation – Preliminary Report	Hideaki Shimatani
16:30 – 16:42	Local NPE6 Sensitized PDT for Inhibiting Intimal Hyperplasia in Experimental Balloon Injured Arteries	Tsuneyuki Nagae

19:00

**Welcome Reception****Vancouver Aquarium***Buses depart from Melville Street entrance 18:45 – 19:10.*



## Congress Program • Thursday, June 7

07:00 – 08:15	<b>Interest Group Breakfast</b> (tickets required)	Plaza Ballroom
08:30 – 10:00	<b>Plenary 3</b>	Regency Ballroom
	<i>Chair:</i> Harvey Lui	
08:30 – 09:00	<i>Photosensitizers</i>	Kevin Smith
09:00 – 09:30	<i>Optical Measurements for Quality Control During PDT</i>	Steven Jacques
09:30 – 10:00	<i>Smart Dosimetry</i>	Brian Wilson
10:00 – 10:30	<b>Refreshment Break/Exhibits/Posters</b>	Regency East
10:30 – 12:00	<b>Plenary 4</b>	Regency Ballroom
	<i>Chair:</i> Harvey Lui	
10:30 – 11:00	<i>Clinical Applications of PDT in Thoracic Medicine</i>	Harubumi Kato
11:00 – 11:30	<i>Clinical Applications of PDT in Dermatology</i>	Harvey Lui
11:30 – 12:00	<i>Photodynamic Diagnosis and Photodynamic Therapy of Brain Tumors</i>	Herwig Kostron
12:00 – 13:30	<b>Lunch Break/Exhibits/Posters</b>	Regency East
12:00 – 13:00	<b>Annual General Meeting</b>	Regency Ballroom
13:30 – 15:00	<b>Concurrent Symposia</b>	
<b>Plaza East</b>	<b>Dermatology (1 of 2) Non-Oncologic</b>	
	<i>Chairs:</i> Robert Bissonnette & Rolf-Markus Szeimies	
13:30 – 13:50	PDT for the Treatment of Psoriasis	Robert Bissonnette
13:50 – 14:10	Photodynamic Therapy for Non-Oncologic Indications in Dermatology – Scerloderma, Sarcoidosis and HPV Related Dermatoses	Rolf-Markus Szeimies
14:10 – 14:20	Effect of Irradiance and Fluence on the Epidermal Phototoxicity of ALA-PDT in Hairless Mouse Skin	Robert Bissonnette
14:20 – 14:30	Quantitative Model Calculation of the Time Dependent Protoporphyrin Concentration in Normal Human Epidermis After Delivery of ALA By Passive Topical Application or Iontophoresis	Willem M. Star
14:30 – 14:40	Induction of Collagenases in Human Dermal Fibroblasts by 5-Aminolevulinic Acid and Light	Sigrid Karrer
14:40 – 14:50	In Vivo Evaluation of Human Melanin by Non-Invasive Raman Spectroscopy In Vitiligo	Iltefat Hamzavi
14:50 – 15:00	Experiences of Studies on PDT for Port Wine Stains	Jun-Heng Li
<b>Regency Ballroom</b>	<b>Mechanisms of Action (2 of 3)</b>	
	<i>Chair:</i> Victor Fingar	
13:30 – 13:40	Phthalocyanines: Structure Activity Relationship and Their Efficiency in the Photoinactivation of Microbial Pathogens	Gabrio Roncucci
13:40 – 13:50	Photodynamic Therapy with Hypericin Induces Vascular Damage and Apoptosis in the RIF-1 Mouse Tumour Model	Chen Bin
13:50 – 14:00	The Role of Complement in the Response of Tumors to Photodynamic Therapy	Ivana Cecic
14:00 – 14:10	Effect of Fluence Rate on Photodynamic Therapy (PDT) Efficacy and Tumor Oxygenation in Meta-Tetra (Hydroxyphenyl)Chlorin (MTHPC) Sensitized Tumor-Bearing Mice	Stephanie Coutier

13:30 – 15:00

**Concurrent Symposia****Regency Ballroom****Mechanisms of Action (2 of 3) continued**

14:10 – 14:20	Oxygen Levels During Continuous and Fractionated 5-Aminolaevulinic Acid (ALA) – Induced Photodynamic Therapy (PDT) of the Normal Rat Colon	Alison Curnow
14:20 – 14:30	The Role of Reperfusion Injury in 5-Aminolaevulinic Acid (ALA) – Induced Photodynamic Therapy (PDT) of the Normal Rat Colon	Alison Curnow
14:30 – 14:40	The Role of Neutrophils in ALA-PDT	Henriette S. de Bruijn
14:40 – 14:50	Scavenger Receptor-Targeted Photodynamic Therapy of Murine Tumors In Vivo	Michael R. Hamblin
14:50 – 15:00	Elevation of HSP27 in PDT Induced Resistant Cancer Cells	John G. Hanlon
15:00 – 15:10	Rapid Impairment of Serca2 and Emptying of Endoplasmic Reticulum Calcium Stores During PDT-Induced Apoptosis is Not Prevented by BCL-2	David W.C. Hunt

**Plaza Centre****Upper GI (1 of 2)***Chairs:* Laurence Lovat & Bergein F. Overholt

13:30 – 13:50	Should We Treat Barrett's Esophagus with PDT?	Laurence Lovat
13:50 – 14:07	Combined Photodynamic Therapy and Hyperbaric Oxygenation in Carcinoma of the Esophagus and the Esophago-Gastric Junction	Udo Anegg
14:07 – 14:24	Photodynamic Therapy in Early Oesophageal Cancer and Long Term Survival	Luigi Corti
14:24 – 14:41	Green Light Foscan Photodynamic Therapy (PDT) on 25 Oesophageal Intramucosal Cancers (IMC)	Jacques Etienne
14:41 – 15:01	PDT for Barrett's Dysplasia – Results of Multicenter and Long Term Studies	Bergein F. Overholt

**Plaza West****Dosimetry (1 of 2)***Chairs:* Haishan Zeng & Willem Star

13:30 – 13:40	Correcting Relative Fluorescence Measurements for Optical-Property-Dependent Variations on the Optical Fiber Collection Efficiency	Paulo R. Bargo
13:40 – 13:50	Fluorescence Photobleaching During 5-aminolevulinic Acid-Induced Protoporphyrin IX Photodynamic Therapy of the Normal Rat Liver	W. Johannes de Wolf
13:50 – 14:00	Implicit Dosimetry: Relationship Between MTHPC Photobleaching and Cell Viability during In Vitro Photodynamic Therapy	Jonathan S. Dysart
14:00 – 14:10	New Techniques for Determination of In Vivo Photosensitizer Concentration Using Diffuse Fluorescence and Reflectance Spectroscopy	Robert A. Weersink
14:10 – 14:20	Multitasking Optical Fibre Probes for PDT Treatment Monitoring and Treatment Planning	Lothar Lilge
14:20 – 14:30	Effect Monitoring of Neoadjuvant Therapy of Rectal Cancer by Delayed Laser-Induced Endogenous Fluorescence Detection	Tim Handke
14:30 – 14:40	Inner-Filter Perturbations of Bacteriochlorin Fluorescence Photobleaching Measurements	Emma C.A. Pittard
14:40 – 14:50	A Two-Phase Illumination Scheme in ALA-PDT: Improved Clinical Outcome?	Peter D. Siersema
14:50 – 15:00	Investigation of Low Power Light and Light Fractionation for Enhancing PDT with mTHPC	Hidemitsu Tsutsui
15:00 – 15:10	Spectrally Resolved Reflectance Imaging: Tissue Characterization and Non-Invasive Monitoring of Photodynamic Treatment of Cancer	Sol Kimel

**Balmoral Room****Urology/Gynecology (1 of 2)***Chair:* Ron Moore

13:30 – 13:50	Prostate Light Dosimetry	John Tulip
13:50 – 14:02	In Vivo Photodynamic Activity of Hypericin in Heterotopic Transitional Cell Carcinoma Bladder Tumors	Appolinary Kamuhabwa

13:30 – 15:00 **Concurrent Symposia**

<b>Balmoral Room</b>	<b>Urology/Gynecology (1 of 2)</b> <i>continued</i>	
14:02 – 14:14	Photodynamic Therapy (PDT) For Prostate Cancer: A Phase I Study in Locally Recurrent Disease After Radiotherapy	Timothy R. Nathan
14:14 – 14:26	Biodistribution of Hypericin in Orthotopic Transitional Cell Carcinoma Bladder Tumors: Implication for its Photodynamic Therapy	Appolinary Kamuhabwa
14:26 – 14:38	Phase I/II Clinical Test of Photodetection of Early Bladder Cancer with the Hexyl Ester of ALA	Patrice Jichlinski
14:38 – 14:50	Phase III Trials for Early Bladder Cancer with h-ALA	Bjorn Klem

15:00 – 15:30 **Afternoon Break/Exhibits/Posters** **Regency East**

15:30 – 17:00 **Concurrent Symposia**

<b>Regency Ballroom</b>	<b>Optical Diagnosis (1 of 2)</b>	
	<i>Chairs:</i> Calum MacAulay & Kinya Furukawa	
15:30 – 15:40	Bacteria-induced Fluorescence as a Disturbant Factor of Protoporphyrin IX - Fluorescence Diagnosis in the Oral Cavity	W. Zenk
15:40 – 15:50	Fluorescence Diagnostic of Malignant Oral Lesions After Local ALA-Application	W. Zenk
15:50 – 16:00	Localization of Small Non-Malignant and Malignant Lesions of the Colon by Laser-Induced Fluorescent Endoscopic (LIFE) Imaging	Wojciech Cebula
16:00 – 16:10	Fluorescence Detection of Bladder Carcinoma After Intravesical Instillation With Hypericin	Marie-Ange D'Hallewin
16:10 – 16:20	Simultaneous Prompt and Delayed Pulsed Laser-Induced Fluorimetry Quantifies Protoporphyrin IX Autofluorescence in Gastrointestinal Tumours	Tim Handke
16:20 – 16:30	Measurements of NIR Raman Spectra of Skin In Vivo Using a Rapid Fiber Optic Raman Spectroscopy System	Zhiwei Huang
16:30 – 16:40	Development and Clinical Application of High-Sensitive Fluorescence Detection System to Detect Cancer Lesion Using Fiber-Optic Endoscope	Yoshinobu Ohsaki
16:40 – 16:50	Fluorescence Visualization with Blue Light More Accurately Estimates the Histopathologic Margins of Basal Cell Carcinoma as Compared to Clinical Examination Alone	Harvey Lui

**Plaza East** **Biliary/Pancreatic/Lower GI**

*Chairs:* Norman Marcon & Stephen Hahn

15:30 – 15:50	PDT for Biliary Cancer	Marianne Ortner
15:50 – 16:10	Phase II Study of Intraperitoneal Photodynamic Therapy for Patients with Overtly Disseminated Intraperitoneal Malignancies	James M. Metz
16:10 – 16:22	Enhanced Mucosal Selectivity with m-THPC Using a Short Drug-Light Interval in the Rat Colon	Neil F. Jamieson
16:22 – 16:34	Photodynamic Therapy for Cholangiocarcinoma	Ian G. Renner

**Balmoral Room** **Neurosurgery**

*Chairs:* Paul Muller & John Hill

15:30 – 15:50	Clinical Trials in the Photodynamic Therapy of Primary Malignant Supratentorial Brain Tumors - Phase 2 and Phase 3 Studies	Paul Muller
15:50 – 16:00	Human U87 Glioma Response to Photodynamic Therapy Using Photofrin in Combination with Buthionine Sulfoxine (BSO)	Michael Chopp

15:30 – 17:00

**Concurrent Symposia****Balmoral Room****Neurosurgery** *continued*

- 16:00 – 16:10 Experimental Basis and Development of a Novel Intracranial Indwelling Balloon Light Applicator: Implications for Photodynamic Therapy in the Brain Henry Hirschberg
- 16:10 – 16:20 High-Dose Laser Irradiation and 5-Aminolevulinic Acid (5-ALA) for Photodynamic Therapy of Glioblastomas Albrecht Hochstetter
- 16:20 – 16:30 Intraoperative Photodynamic Diagnosis of Human Malignant and Benign Gliomas Using ALA Induced PpIX Sadao Kaneko
- 16:30 – 16:40 PDT Induced Apoptosis in the 9L Rat Glioma Model Lothar Lilge
- 16:40 – 16:50 Intraoperative Detection Of Malignant Brain Tumors By A Multispectral Fluorescence Guidance System Victor Yang

**Plaza West****Photosensitizers (2 of 3)***Chairs:* Johan van Lier & Ravindra K. Pandey

- 15:30 – 15:50 PDT Tumor Response in the Rat: Real-Time Monitoring by FDG-PET Imaging Johan van Lier
- 15:50 – 16:10 HPPH-Aminophenyl DTPA [Gd(III)]-Conjugate: A Potential Tumor Diagnostic Agent for MRI and Photosensitizer for PDT Ravindra K. Pandey
- 16:10 – 16:20 Novel Strategies for the Construction of Targeted PDT Agents Using Porphyrin Isothiocyanates Oliver J. Clarke
- 16:20 – 16:30 The Application of Combinatorial Techniques in the Synthesis of Novel Photosensitizers Kerry J. Elgie
- 16:30 – 16:40 Acetylene-Substituted Phthalocyanine Analogues As New Photosensitisers For Photodynamic Therapy Rudiger Faust
- 16:40 – 16:50 Studies on Photodynamic Effects of Hydrophilic Photosensitizers, ATX-S10Na(II) and PAD-S31 Eiji Kohno
- 16:50 – 17:00 Improvement of PDT with Esterification of ALA: Influences on PPIX Accumulation, - Kinetics and - Phototoxicity René C. Krieg
- 17:00 – 17:10 MV6401: A New Potent Photosensitizer for Photodynamic Therapy Byron C. Robinson

**Plaza Centre****Upper GI (2 of 2)***Chairs:* Ken Wang & Herbert Wolfsen

- 15:30 – 15:40 Photodynamic Therapy for Dysplastic Barrett's Oesophagus: Long Term Follow Up Clive J. Kelty
- 15:40 – 15:50 Long-Term Survival After Photodynamic Therapy With Photofrin® For Early Gastric Cancer Seishiro Mimura
- 15:50 – 16:00 Endoscopic Photodynamic Therapy (PDT) in Inoperable Oesophageal Cancer Keyvan Moghissi
- 16:00 – 16:10 EMR-PDT for Gastric Cancer Hirojuki Narahara
- 16:10 – 16:20 Photodynamic Therapy for Gastric Cancer Yoshiro Nishiwaki
- 16:20 – 16:30 Optimization of Light Dosimetry During Photodynamic Therapy in the Esophagus: An Animal Study Alexandre Radu
- 16:30 – 16:40 Laser Therapy of Colorectal Cancer: Is There a Role for Photodynamic Therapy? Allan Weiss
- 16:40 – 16:50 P53 Mutations in Barrett's Esophagus Predict Poor Response to Photodynamic Therapy Kenneth K. Wang
- 16:50 – 17:00 Photodynamic Therapy for Dysplastic Barrett's Esophagus and Mucosal Esophageal Adenocarcinoma Herbert C. Wolfsen

## Congress Program • Friday, June 8

### 08:30 – 10:00 **Plenary 5** **Regency Ballroom**

*Chair:* David McLean

08:30 – 09:00	<i>Mechanisms of Action of PDT – Cellular Mechanisms</i>	David Kessel
09:00 – 09:30	<i>Molecular Mechanisms Moving to Clinical Treatments</i>	Charles Gomer
09:30 – 10:00	<i>Cardiovascular PDT</i>	Jean McEwan

### 10:00 – 10:30 **Refreshment Break/Exhibits/Posters** **Regency East**

### 10:30 – 12:00 **Plenary 6** **Regency Ballroom**

*Chair:* David McLean

10:30 – 11:00	<i>PDT in Urology</i>	Ronald Moore
11:00 – 11:30	<i>Clinical Applications of PDT in Biliary and Pancreatic Diseases</i>	Stephen Bown
11:30 – 12:00	<i>Head and Neck Cancer</i>	Merrill Biel

### 12:00 – 13:30 **Lunch Break/Exhibits/Posters** *(lunch on own)*

### 12:00 – 13:15 **Visudyne™ Session** *(closed workshop)* **Grouse**

*Visudyne™ Therapy for the Treatment of Wet Age-Related Macular Degeneration*  
*This session will be of interest to general ophthalmologists and those wishing to become familiarized with Visudyne™ therapy for the treatment of wet age-related macular degeneration. Several clinical examples will be reviewed, including diagnosis by fluorescein angiogram and narration of a Visudyne™ treatment.*

Michael J. Potter

### 13:30 – 15:00 **Concurrent Symposia**

#### **Plaza East** **Dermatology (2 of 2)**

*Chairs:* Colin A. Morton & Allan Oseroff

13:30 – 13:45	Indications for ALA-PDT in Cutaneous Malignancy	Colin A. Morton
13:45 – 14:00	Skin PDT: Outcomes, Treatment, Parameters and Metrics	Allan Oseroff
14:00 – 14:10	Photodynamic Therapy of Non-Melanoma Skin Cancers with Verteporfin and Red Light Tumor Response and Cosmetic Outcome	Lori Hobbs
14:10 – 14:20	Topical ALA-Mediated Photodynamic Therapy of Superficial Basal Cell Carcinoma Using Two Light Fractions With a Two Hour Interval	Willem M. Star
14:20 – 14:30	Kinetics of ALA-Induced Fluorescence of Human Skin Tumors In Vivo	Christoph Abels
14:30 – 14:40	Long-Time Follow-up after ALA-PDT of Superficial Basal Cell Carcinoma	Sigrid Karrer
14:40 – 14:50	Late Recurrence of Superficial Basal Cell Carcinoma Following ALA-PDT	Joyce A. Leman
14:50 – 15:00	Photofrin Photodynamic Therapy for Nevroid Basal Cell Carcinoma Syndrome	Sherry Shieh
15:00 – 15:10	Photodynamic Therapy for Chest Wall Progression from Breast Cancer is an Underutilized Treatment Modality	Thomas S. Mang

#### **Plaza Centre** **Infectious Diseases / Topical PDT (1 of 2)**

*Chairs:* Tayyaba Hasan & Jun-Heng Li

13:30 – 13:42	Photodynamic Therapy for Wound Infections	Michael R. Hamblin
13:42 – 13:54	Photodynamic Therapy of Oral Plaque Biofilms Formed In Vivo	Simon R. Wood
13:54 – 14:08	Photodynamic-Ultrasonic Therapy of Infected Wound	Vladimir P. Zharov
14:08 – 14:20	Oncological Applications of Photodynamic Therapy and Selective Laser Hyperthermia	Mark L. Gelfond

13:30 – 15:00

**Concurrent Symposia****Plaza Centre****Infectious Diseases / Topical PDT (1 of 2)** *continued*

- 14:20 – 14:32 Photodynamic Therapy and Topical Application of the New Photosensitizer MV6401 Stephanie F. Greene
- 14:32 – 14:44 ALA Penetration in Cutaneous Tumors: Measurement by Protoporphyrin IX Fluorescence and Correlation with Peripheral Benzodiazepine Receptor Expression Janet Morgan
- 14:44 – 14:56 Photodynamic Therapy for MRSA Nobuyuki Sakaniwa

**Balmoral Room****Optical Diagnosis (2 of 2)***Chairs:* Reinhold Baumgartner & Stefan Andersson-Engels

- 13:30 – 13:50 5-ALA Assisted Imaging: News and Views Reinhold Baumgartner
- 13:50 – 14:00 Endoscopic Detection of Dysplasia and Early Cancer in Barrett's Esophagus after Sensitization with 5-Aminolevulinic Acid Thomas Stepinac
- 14:00 – 14:10 Barrett's Esophagus: High Detection Rate for Dysplasia and Early Adenocarcinoma by Combined Screening with 4-Quadrant Biopsies and Photodynamic Detection Gian O. Dorta
- 14:10 – 14:20 The Use of An Optical Biopsy System in Barrett's Esophagus Kenneth K. Wang
- 14:20 – 14:30 Quantitative Fluorescence Imaging Annette McWilliams
- 14:30 – 14:40 Spectroscopic Diagnosis of Bladder Tumours Using Fluorescence Excitation-Emission Matrix Wei Zheng
- 14:40 – 14:50 Detection of Superficial Extension of Central Type Lung Cancer by Photodynamic Diagnosis Assisted with Fluorescent Endoscopy Takaaki Tsuchida

**Plaza West****Photosensitizers (3 of 3)***Chairs:* Clifford Leznoff & Kevin Smith

- 13:30 – 13:39 Photodynamic Therapy (PDT) of a Gastric Cancer Cell Line Using Indocyanine Green (ICG) and a Low Power Laser Diode Christopher Russell
- 13:39 – 13:48 Comparative Spectroscopic Studies of Photosensitizer – Model Membrane Interactions Sarah Gerhardt
- 13:48 – 13:57 Uptake, and Localization of MTHPC and its <sup>14</sup>C-Labeled Form in Normal and Tumoral Tissues of the Hamster Squamous Cell Carcinoma Model: A Comparative Study Snezana Andrejevic-Blant
- 13:57 – 14:06 Clinical Evaluation of a Promising New Chlorin E6 Derivative – Photochlorin 1 E. Ph. Stranadko
- 14:06 – 14:15 Photodynamic Inactivation of a Human Glioblastoma Cell Line Using 5-Aminolevulinic Acid-Induced Protoporphyrin IX – Modulation by Iron and Differentiating Agents Wolfgang Strauss
- 14:15 – 14:24 Evaluation of the Potential of Pyropheophoride-a Methyl Ester (MPPa) as a New Photosensitizer: A Comparison of its Photodynamic Efficacy and Yield of Oxygen Singlet with mTHPC X. Sun
- 14:24 – 14:33 Photodynamic Therapy on Normal Rat Colon Using Tookad (WST09), a Bacteriochlorophyll Derivative Josephine Woodhams
- 14:33 – 14:42 Symmetrical Phenothiazine Dyes as Potential Therapeutic Agents for Use in Photodynamic Therapy Andrea L. Bell
- 14:42 – 14:51 Tookad – A Novel Palladium-Bacteriochlorophyll Sensitizer for Photodynamic Therapy: Synthesis and Characterization Avigdor Scherz



13:30 – 15:00 **Concurrent Symposia**

**Plaza West** **Photosensitizers (3 of 3) continued**

- |               |  |                  |
|---------------|--|------------------|
| 14:51 – 15:00 | Photodynamic Therapy (PDT) of Rat C6 Glioma Xenografts With Pd-Bacteriopheophorbide (Tookad) Leads to Decreased Metastases and Increased Animal Cure Compared to Surgery | Smadar Schreiber |
| 15:00 – 15:09 | The Photochemical and Photophysical Mechanism Initiated by Excited PD-Bacteriochlorophyll Derivative   | Vakrat Yahel     |

**Stanley Room** **Urology/Gynecology (2 of 2)**

**34th Floor** *Chair:* Dieter Jocham

- |               |   |                   |
|---------------|---|-------------------|
| 13:30 – 13:50 | Long Term Results of PDT of Bladder Tumors  | Dieter Jocham     |
| 13:50 – 14:02 | Simultaneous Auto- and Xenofluorescence in the Diagnosis of Cervical Intraepithelial Neoplasia                                    | Peter Hillemans   |
| 14:02 – 14:14 | Application and Perspective of PDT and Chemotherapy to Stage Ib1 Cervical Cancer  | Tetsuya Muroya    |
| 14:14 – 14:26 | Enhanced Photodynamic Ablation of the Rabbit Endometrium Using 5-Aminolaevulinic Acid and the Iron-Chelating Agent CP94           | Dilip Visvanathan |
| 14:26 – 14:38 | Autofluorescence Analysis of Bladder Cancer Using Laser Confocal Microscopy and Spectroscopy                                      | Malini Olivo      |
| 14:38 – 14:50 | Macro-Microscopic Fluorescence Analysis of Bladder Cancer Using ALA Induced Fluorescence Cystoscopy and Laser Confocal Microscopy | Malini Olivo      |
| 14:50 – 15:00 | Photodetection of Ovarian Cancer with h-ALA   | Attila Major      |

15:00 – 15:30 **Afternoon Break**

**Plaza**

15:30 – 17:00 **Concurrent Symposia**

**Plaza Centre** **Regulatory Issues & Outcomes Research in PDT**

*Chairs:* Michael Unger & Eric Edell

- |               |  |                       |
|---------------|--|-----------------------|
| 15:30 – 15:45 | Evaluating Clinical Outcomes of Palliative PDT   | Teresa Goodell        |
| 15:45 – 16:00 | Quality of Life as an Outcome of PDT for Barrett's Esophagus   | Kathy B. Wright       |
| 16:00 – 16:15 | Regulatory Issues Facing PDT Investigations  | John Hill             |
| 16:15 – 16:30 | Selective Porphyrin Synthesis in Chemically Induced Skin Tumours: Implications in Cutaneous Photosensitisation | Alcira Batlle         |
| 16:30 – 16:40 | Our Experience in PDT with Photosensitizers of Different Groups  | Evgueni Ph. Stranadko |

**Plaza East** **Topical PDT (2 of 2)**

*Chairs:* Roy Pottier & Qian Peng

- |               |  |                     |
|---------------|--|---------------------|
| 15:30 – 15:50 | Topical Photodynamic Therapy in Dermatology: The How's, The Why's and the Why Not's  | Alexis Sidoroff     |
| 15:50 – 16:10 | PDT of BCC & AK with Metvix  | Trond Warloe        |
| 16:10 – 16:20 | Photodynamic Diagnosis, Therapy and Real-Time Treatment Control  | Arie Orenstein      |
| 16:20 – 16:30 | Superficial Temperature and Perfusion Measurements in Connection with PDT of Basal Cell Carcinomas                                 | Sara Palsson        |
| 16:30 – 16:40 | Optimising Illumination Protocols for ALA-PDT  | Dominic J. Robinson |
| 16:40 – 16:50 | Effect of Photodynamic Treatment With Superficial Application of 5-Aminolaevulinic Acid (ALA) on Implantable Breast Cancer in Mice | Miroslaw Stec       |



15:30 – 17:00

**Concurrent Symposia****Plaza East****Topical PDT (2 of 2)** *continued*

16:50 – 17:00 A Study on the Penetration of 5-Aminolaevulinic Acid and its Methyl and Hexyl Esters Through Normal and UVB Treated Hairless Mouse Skin David I. Vernon

**Stanley Room****Immunomodulation****34th Floor***Chairs:* Sandra Gollnick & Mladen Korbelik

15:30 – 15:50 Generation of Anti-Tumor Vaccines Using PDT Sandra Gollnick

15:50 – 16:10 Engagement of PDT-Induced Host Immune Defence Mechanisms in the Eradication of Cancerous Lesions Mladen Korbelik

16:10 – 16:20 Increased Cytotoxic Effects of Photodynamic Therapy in IL-6 Gene Transfected Cells via Enhanced Apoptosis Shuji Ichinose

16:20 – 16:30 Topical ALA-PDT Modifies Cytokine Levels in Serum of Patients with Skin Tumours Mariusz Adamek

16:30 – 16:40 Influence of Host Immunity in Photodynamic Therapy Gianfranco Canti

16:40 – 16:50 Effect of PDT With QLT0074 on Cytokine Release From Human Endothelial Cells Anthea Tench Stammers

16:50 – 17:00 Potentiation of Therapeutic Efficacy of PDT by In Vivo Administration of Cyclophosphamide and Lymphokine Activated Killer Cells on Rat Ascites Tumor Cells Dima F. Vasile

17:00 – 17:10 Pre-Clinical Trials of h-ALA for PDT of Rheumatoid Arthritis Norbert Lange

**Balmoral Room****Mechanisms of Action (3 of 3)***Chairs:* Barbara Henderson & Nancy Oleinick

15:30 – 15:40 Spectral Characteristics, Photocytotoxicity, Intracellular Localization of a New Chlorophyll-Derived Photosensitizer of Pyropheophoride-a Methyl Ester (MPPa) in Human Lung Carcinoma Cancer Cell and its Induced Apoptosis Albert W.N. Leung

15:40 – 15:50 Combination Therapy of a Cultivated Leukemia Cell with Photoradiation and Sonolysis Norio Miyoshi

15:50 – 16:00 Carrier Protein of Water-Soluble Tumor Localizing Porphyrin-Atn-2, ATX-S10 (Na) Susumu Nakajima

16:00 – 16:10 Oxygen Dynamics During PDT: Comparison of In Vivo and In Vitro Effects for Vascular Versus Cellular Targeting Sensitizers Brian W. Pogue

16:10 – 16:20 Involvement of the Tumour Microcirculation in Aminolaevulinic Acid (ALA) Based Photodynamic Therapy (PDT) In Vivo F. Ruth Potter

16:20 – 16:30 Influence of Oxygen Level on Aminolevulinic Acid (ALA) Mediated Protoporphyrin IX (PPIX) Accumulation and Photodynamic Damage Joachim Rauch

16:30 – 16:40 Confocal Laser Scanning Microscopy to Investigate Dose Dependent Cell Death Mechanisms During ALPCS4 - PDT in Adherent Cells Angelika Ruck

16:40 – 16:50 Subcellular Time-Resolved Microspectrofluorometry of ALA-PPIX and mTHPC Using Short Pulsed Diode Lasers Angelika Ruck

16:50 – 17:00 Influence of Steroid Hormones and Steroid Hormone Antagonists On Photodynamic Inactivation In Vitro Reinhard Sailer

17:00 – 17:10 Mechanism Underlying the Potentiating Effect of a Transient Thrombocytopenia on Photofrin-Based Photodynamic Therapy Wim Sluiter

17:10 – 17:20 Endogenous Protoporphyrin IX (PPIX) Production in Rat Pancreatoma Cells from  $\delta$ -Aminolaevulinic Acid (ALA) and N-Pentyl ALA Ester Caroline J. Whitaker

17:20 – 17:30 Real-Time Image Analysis of PDT Cell-Death In Vitro With a Cooled Color CCD Camera Under a Confocal Laser Video-Microscope Takato O. Yoshida

## Congress Program • Friday, June 8

### 15:30 – 17:00 *Concurrent Symposia*

#### **Plaza West** **Dosimetry (2 of 2)**

*Chair:* Michael Patterson

15:30 – 15:50	Progress in PDT Dosimetry	Michael Patterson
15:50 – 16:00	Detection of PDT-Generated Singlet Oxygen in In Vitro and In Vivo by Near-Infrared Luminescence	Brian C. Wilson
16:00 – 16:10	Monitoring Photoproduct Formation and Photobleaching by Fluorescence Spectroscopy Improves PDT Dosimetry	Haishan Zeng
16:10 – 16:20	Long-Term Stability of Silicon Photodiode Calibration for In Vivo Dosimetry in Photodynamic Therapy	Timothy C. Zhu
16:20 – 16:30	The Effect of PDT on In Vivo Oxygen Saturation and Microvascular Circulation	Josephine Woodhams
16:30 – 16:40	Observation of the Binding State Between Human Serum Albumin and Mono-L-Aspartyl Chlorin E6 Using the Surface Plasmon Resonance Phenomenon	Taichiro Ishizumi
16:40 – 16:50	Measuring Blood-Flow Changes of Tumor Implanted in Mice by Noninvasive Optical Multichannel Oxygen Monitor	Junichi Nitadori

19:00

### *Banquet*

**Regency Ballroom**

## Congress Program • Saturday, June 9

### 08:30 – 10:00 *Plenary 7*

**Regency Ballroom**

*Chair:* Harvey Lui

08:30 – 09:00	<i>Upper GI PDT</i>	Helmut Messman
09:00 – 09:30	<i>Immune Modulation</i>	Craig Elmets

### 09:30 – 10:00 *Refreshment Break*

### 10:00 – 12:00 *Plenary 8*

**Regency Ballroom**

*Chairs:* Hubert van den Bergh & Steven Jacques

10:00 – 12:00	<i>Drug Discovery and Clinical Trials</i>	Industry Representative
---------------	---	-------------------------

Poster viewing will be available Wednesday through Friday in the Regency Foyer.

### Cardiovascular

- |   |  |                   |
|---|--|-------------------|
| 1 | Sustained Benefit During 2 Year Follow Up in a Pilot Study of Adjuvant Photodynamic Therapy and Angioplasty for Restenosis of the Superficial Femoral Artery | Richard Mansfield |
| 2 | Effects of Photodynamic Therapy on Elastic Fiber Networks in the Atheroma of Rabbits Using NPe6 and a Long Wavelength Diode Laser                            | Junichi Hayashi   |
| 3 | Photodynamic Therapy of PIG Coronary Arteries Induces Apoptosis of Endothelial and Vascular Smooth Muscle Cells  | Richard Mansfield |

### Dermatology

- |   |   |                      |
|---|---|----------------------|
| 4 | The Problems and Complications of Photodynamic Therapy in the Treatment of Skin Neoplasms   | Edward Stanowski     |
| 5 | Cutaneous Consequences of Gastroesophageal Photodynamic Therapy   | Christine S. Ng      |
| 6 | Photodynamic Therapy Using Topical Methyl-5-Aminolevulinic Acid (Metvix) is as Efficacious as Cryotherapy in Actinic Keratosis, but with Superior Cosmetic Results and High Patient Satisfaction. A Prospective, Randomized Study | Rolf-Markus Szeimies |
| 7 | Topical Photodynamic Therapy: The Nurses Perspective  | Michael Dean         |
| 8 | Malignant Melanoma: A New Type of Sensitizers for its PDT and a New Method for Early Diagnostics  | Dieter Leopold       |
| 9 | Combination Effect of Photodynamic and Sonodynamic Therapy on Experimental Skin Squamous Cell Carcinoma in C3H/Hen Mice   | Norio Miyoshi        |

### ENT

- |    |   |                   |
|----|---|-------------------|
| 10 | Pharmacokinetics of Protoporphyrin IX in Human Blood and Skin Following Oral Rinsing of 5-Aminolevulinic Acid | Christian S. Betz |
|----|---|-------------------|

### Gynecology

- |    |   |                   |
|----|---|-------------------|
| 12 | Photodynamic Therapy of Vulvar Dysplasia with 5-ALA   | Marija Hillemanns |
| 13 | Angiosarcoma After Radiotherapy of Breast Cancer PDT as a Therapeutic Option for this Unusual Tumor | Peter Urban       |

### Immunomodulation

- |    |  |                  |
|----|--|------------------|
| 14 | Impact of PDT with QLT0074 on Murine Models of Cutaneous Inflammation  | Leslie G. Ratkay |
| 15 | Adoptive Immunotherapy with Genetically Altered Natural Killer Cell Line Increases the Cure Rate of PDT-Treated Tumors | Jinghai Sun      |

### Light Sources and Delivery

- |    |   |                       |
|----|---|-----------------------|
| 16 | In Vivo Determination of Tumor Optical Parameters in Esophageal Carcinoma       | Udo Anegg             |
| 17 | Cylindrical Diffusing Tips for PDT Light Delivery Based on Type 2 Bragg Grating | Lothar Lilge          |
| 18 | Laser Devices for PDT with Chlorin E6 Derivative                                | Evgueni Ph. Stranadko |

**Lower GI**

- 19 Tumor Reduction Before Photodynamic Therapy: New Technique of Endoscopic Treatment for Advanced Rectal Cancer Tetsuya Nakamura
- 20 Outcome of Patients with Cholangiocarcinoma After Local Treatment with Photodynamic Therapy Thomas Nesbigall
- 21 Photodynamic Effect for Chemically Induced Hepatocellular Carcinoma in a Rat Model Masako Nishiwaki
- 22 Selective Accumulation of Protoporphyrin IX in Chemically Induced Hepatocellular Carcinoma in a Rat Model Mamiko Otake

**Mechanisms of Action**

- 23 Threshold for PDT Induced Cell Destruction Measured in Human Cancer Cell Embedded in the Hen's Egg Model Hans-Jochen Foth
- 24 Chlorine e<sub>6</sub> Induced Photosensitized Increase of Cells Passive K<sup>+</sup>- Permeability Grigor V. Gyulkhanyan
- 25 Detection of 1.27um Emission from Singlet Oxygen in Photodynamic Therapy Toru Hirano
- 26 Anti-Invasion Effects of Low Dose PDT With Photofrin on U251n Human Glioma Cells and 9L-Gliosarcoma Cells Feng Jiang
- 27 Clinical and Experimental Evidence of bcl-2 Involvement in Response to Photodynamic Therapy Michael I. Koukourakis
- 28 Hypoxia Inducible Factor (HIF-1a and HIF-2a) Expression in Early Esophageal Cancer and Response to Photodynamic Therapy and Radiotherapy Michael I. Koukourakis
- 29 Generation of Reactive Oxygen Species by Tookad Depends on the Sensitizer Microenvironment Brian W. McIlroy
- 30 Aminolaevulinic Acid Hexyl Ester (Alahe) Based Photodynamic Therapy (PDT) – The Role of the Tumour Microcirculation In Vivo F. Ruth Potter
- 31 A Microfluorescence Technique for the Study of Intracellular PpIX Photobleaching Caroline Sudworth
- 32 Role of the Extracellular Signal-Regulated Kinases in the Sensitivity of Human Cells to Photofrin-Mediated PDT Zhimin Tong
- 33 Photodynamic Therapy (PDT) of Human Tumor Xenografts Lacking Caspase-3 Cecilia M. Whitacre
- 34 Action of δ-Aminolevulinic Acid and δ-Aminolevulinic Acid Methyl Ester on Human Cancer Cells Christina M.N. Yow
- 35 Spectroscopic Properties and Time Evolution of PPIX in a Mammary Adenocarcinoma M2 after δ - ALA Administration. An In Vivo Fluorescence Study Patricia del V. Reposi

**Neurosurgery**

- 36 Photodynamic Therapy With Photofrin Plus BSO Reduces Invasiveness of U87 Human Glioma Cells Feng Jiang
- 37 Photodynamic Therapy Of Recurrent Intracranial Metastatic Cancer: Report Of 8 Cases Paul Muller

**Ophthalmology**

- 38 Prevention of Posterior Capsule Opacification by Photodynamic Therapy with Localized Verteporfin for Injection (Benzoporphyrin Derivative Monoacid) in a Euthanized Rabbit Surgical Model Howard E. Meadows

**Optical Diagnosis**

- 39 Fluorescence diagnosis of Papillomas and Early Stage Cancer of Larynx and Bronchus: Combination of Autofluorescence and 5-ALA Induced Fluorescence Imaging with In Situ Spectrophotometry Victor Sokolov
- 40 Technical Note on Intraoperative MTHPC-Mediated Fluorescence Diagnosis of Malignant Brain Tumors Andreas Zimmermann
- 41 Influence of the PH Value on the Absorption and Fluorescence Properties of MTHPC Andreas Zimmermann

**Photosensitizers**

- 42 Anticancer Effect of Photodynamic Therapy Using 9-Hydroxypheophorbide-a and 660nm Diode Laser on Squamous Cell Carcinoma Cell Line  
Phil-Sang Chung
- 43 Aggregation of Water-Soluble Diaminoacid Protoporphyrin Derivatives - PP(AA)2Arg2  
Mariusz Czuba
- 44 Building An Arsenal of Tumoricidal Porphycene Photosensitizers From a Single Precursor  
Wilson Sum Wai Lam
- 45 Synthesis and Modifications of Benzochlorin Photosensitizer for PDT  
Yan Kin Lau
- 46 Veterinary Clinical Application of PDT with PAD-S31 (New Photo Sensitizer)  
Saburo Minami
- 47 Photosan - A Porphyrin Sensitizer up to Date  
Hans Mueller  
von der Haegen
- 48 Second Generation Photosensitizer ATX-S10 for Photodynamic Therapy  
Yoshinori Nakae
- 49 Development of New PDT-Drugs Based on Nonsteroidal Antiprogestins of Marine Origin  
Mario Wurglics
- 50 Optimal Tissue Retention Property of New Photosensitizer: PAD S31  
Yoshiharu Okamoto
- 51 Determination of the Peak Absorption Wavelength and Disaggregation Kinetics of Tookad In Vivo Using Dynamic, Spatially-Resolved Diffuse Reflectance Spectroscopy in a Rabbit Model  
Robert A Weersink
- 52 Determination of Singlet Oxygen Quantum Yield of Diaminoacid Protoporphyrin Derivatives -PP(AA)2Arg2  
M. Shu Ye

**Thoracic**

- 53 Md-YAG Laser and PDT in Paliative Therapy in Advanced Bronchial Carcinoma  
Emil G. Benov
- 54 Does Combined Photodynamic Therapy and Hyperbaric Oxygenation Influence the Acute Relief of Poststenotic Symptoms in Lung Cancer?  
Birgit Fell

**Topical PDT**

- 55 No Systemic Contribution to New In vivo Protoporphyrin IX Fluorescence Following Photobleaching  
Angélique  
van den Heuvel

**Upper GI**

- 56 Does New Photosensitizer Improve Photodynamic Therapy in Advanced Esophageal Carcinoma  
Birgit Fell
- 57 In Vivo Light Dosimetry During Photodynamic Therapy of Barrett's Oesophagus With 5-Aminolevulinic Acid  
Robert L.P. van Veen

**Urology**

- 58 Photodynamic "Brachy" Therapy  
C. Alexander Mosse