PROGRAM

SUNDAY MAY 17th

Prior the commencement of the Meeting in Akko, a special symposium titled

"Applied ChronoMedicine"

Will take place in the "Meetings Hall", third floor, Azriely Mall, Round Tower, 132 Manachem Begin St., Tel Aviv.

The symposium is held under the auspices of the Society for Clinical and Basic Chronobiology – Israel and "Teva" Pharmaceutical Industries Ltd.

Symposium Program

09:30 - 10:15
LIGHT-AT-NIGHT AND BREAST CANCER: ASSESSMENT OF THE LATEST EVIDENCE
Prof. Richard G. Stevens
School of Medicine University of Connecticut, USA

10:15 – 11:00
WHY GRANDMOTHER CANNOT SLEEP: CHANGES IN SLEEP AND RHYTHMS WITH AGE
Prof. Sonia Ancoli-Israel
University of California, San Diego, USA

11:00 - 11:30   Coffee Break

11:30 - 12:15
THE USE OF MELATONIN IN MEDICINE - CURRENT FACTS AND FUTURE PERSPECTIVE
Nava Zisapel
The dep. Of neurobiology Tel Aviv University, Israel

12:15 – 13:00
CHRONOBIOLOGY AND CHRONOTHERAPY OF HYPERTENSION
Prof. Ramon.C. Hermida
Bioengineering & Chronobiology Labs., University of Vigo, Spain

13:00   Lunch

END OF SYMPOSIUM
Arrival at Palm Beach Hotel, Akko

Approach the Hotel check in desk and get your room.

Registration desk will be functioning from 10:00 in the hotel Lobby.

Commencement of Meeting

17:30 Transfer to Akko Old City,
17:45 – 18:45 Guided tour – Streets of Akko Old City
18:45 Crusaders Halls
19:00 - 19:15 Welcome
19:30 - 19:50 Opening lecture

THE SUNLIGHT PREMIUM: WEATHER, MOOD, AND ECONOMIC BEHAVIOR, FIELD DATA EVIDENCE
Doron Kliger,  
Department of Economics, University of Haifa, Rabin BLDG, Haifa 31905, Israel

19:50 – Tour of "Crusader halls" followed by "Ice breaking" (become acquaint with your colleagues) while holding a glass of wine in one hand and a plate loaded with various Mediterranean delicacies in the other hand.

Return to Hotel at your own time. It is enjoyable to stroll in the city, sit in pubs, restaurants or coffee houses are welcome to do so. It is very easy to take a cab from the old city to the hotel (5 min drive) at any time.

END OF FIRST DAY
MONDAY MAY 18

Breakfast

THE \( \alpha \) AND THE \( \Omega \)

DOMAIN
RECRUITING MOLECULAR BIOLOGY AMD MOLECULAR GENETICS

SESSION 1

Introducer: Ashkenazi I

08:30 – 09:05
HOW CIRCADIAN CLOCKS KEEP TIME: INSIGHTS FROM DROSOPHILA
Sebastian Kadener
Biological Chemistry Department, Silberman Institute of Life Sciences, Hebrew University of Jerusalem

09:05 – 09:40
CHOLESTEROL AND CIRCADIAN GATING CONTROL THE TIMING OF DROSOPHILA METAMORPHOSIS VIA THE NUCLEAR RECEPTORS E75 AND DHR3: MODEL FOR CIRCADIAN CONTROL OF FEEDING AND DEVELOPMENT
Krause, H.M., Necakov, S. and Caceres, L.
Banting and Best Dept. of Medical Research, University of Toronto, Toronto, Ontario, Canada

09:40 – 10:15
THE SUPRACHIASMATIC NUCLEUS AS REGULATOR OF THE SET POINT OF HYPOTHALAMIC FUNCTIONS
Ruud M Buijs\(^1\); Mari Carmen Basualdo\(^1\); Frederik N Buijs\(^1\); Kiyoshi Sepulveda\(^1\); Frank S Scheer\(^2\); Carolina Escobar\(^3\).
\(^1\)Instituto de Investigaciones Biomédicas Universidad Nacional Autónoma de México
\(^2\)Division of Sleep Medicine, Brigham and Women’s Hospital, Boston
\(^3\)Departamento de Anatomía, Universidad Nacional Autónoma de México

10:15 – 10:30 Discussion

10:30 – 11:00 Coffee Break

SESSION 2

Relevance to aging
Relevance to feeding and obesity
Relevance to human cells’ rhythms
Relevance to entrainment
Relevance to desynchrony by photic signals

Chairperson: Kadener S

11:00 – 11:25
THE EFFECT OF FEEDING REGIMENS ON CIRCADIAN RHYTHMS: LESSONS FROM LONG-LIVED TRANSGENIC MICE
Oren Froy\(^a\), Nava Chapnik\(^a\), Ruth Miskin\(^b\)
\(^a\)Institute of Biochemistry, Food Science and Nutrition, Faculty of Agricultural, Food and Environmental Quality, The Hebrew University of Jerusalem, P.O. Box 12, Rehovot 76100, Israel
\(^b\)Department of Biological Chemistry, Weizmann Institute of Science, Rehovot 76100, Israel
11:25 – 11:45  
HIGH-FAT DIET DISRUPTS THE CIRCADIAN EXPRESSION OF ADIPONECTIN SIGNALING COMPONENTS IN MOUSE LIVER, MUSCLE, AND ADIPOSE TISSUE  
Maayan Barnea, Zecharia Madar, Oren Froy  
Institute of Biochemistry, Food Science and Nutrition, Robert H Smith Faculty of Agriculture, Food and Environment, The Hebrew University of Jerusalem, P.O Box 12, Rehovot 76100, Israel

11:45 – 12:10  
CLOCK GENES DISPLAY RHYTHMIC EXPRESSION IN HUMAN HEARTS  
Valentin Leibetseder,1,2,* Susanne Humpeler,1,2 Martin Svoboda,1 Diethart Schmid,1 Theresia Thalhammer,1 Andreas Zuckermann,1 Wolfgang Marktl,1,2 Cem Ekmekcioglu,1,2  
1 Center of Physiology and Pathophysiology, Medical University Vienna, Austria  
2 Ludwig Boltzmann-Institut for Research of Physiologic Rhythms, Austria  
*Corresponding author: Center of Physiology and Pathophysiology, Medical University Vienna, Schwarzspanierstrasse 17, 1090 Vienna / Austria;

12:10 – 12:30  
REGULATION OF PERIOD2 EXPRESSION IN ZEBRAFISH: TOWARDS UNDERSTANDING THE MOLECULAR MECHANISM OF LIGHT-ENTRAINMENT  
Gad Vatine, Daniela Vallone, Nick Foulkes, Yoav Gothilf  
Department of Neurobiology, Faculty of Life Sciences, Tel Aviv University, Tel Aviv, Israel  
Institut für Toxikologie und Genetik, Forschungszentrum Karlsruhe, Germany

12:30 – 12:50  
CELL CYCLE ASSOCIATED TRANSCRIPTS ARE AFFECTED BY LIGHT PULSE DURING THE DARK PHASE – A MICROARRAY ANALYSIS OF MOUSE BRAIN  
R. Ben-Shlomo1 and C.P. Kyriacou2  
1 Department of Biology, Faculty of Science and Science Education, University of Haifa - Oranim, Tivon 36006, Israel; e-mail: ekly@research.haifa.ac.il  
2 Department of Genetics, University of Leicester, Leicester LE1 7RH, UK

12:50 – 13:05  
ANALYSIS OF PHYSICAL INTERACTION BETWEEN MICE CRYPTOCHROME AND PERIOD PROTEINS  
Gulnaz Tatlici, Ibrahim Baris, Natali Ozber, Ibrahim Halil Kavakli  
Koc University, College of Engineering, Chemical and Biologic Engineering, Rumeli Feneri Yolu, Sariyer, Istanbul, Turkey gtatlici@ku.edu.tr

13:05 – 13:30  Discussion

13:30 – 15:00  Lunch
DOMAIN

HUMAN CHRONOBIOLOGY AND CHRONO MEDICINE

SESSION 3

Introducer: Smolensky M.

15:00 – 15:40
BIOLOGICAL CLOCK DISTURBANCES AND THEIR TREATMENTS
Yvan TOUITOU,
Department of Medical Biochemistry and Molecular Biology, INSERM, UMR 975, Faculty of Medicine Pierre et Marie Curie, 91 boulevard de l'Hôpital, 75013 Paris, France.

15:40 – 16:20
THE DEVELOPMENT OF THE HUMAN TIME STRUCTURE FROM FETAL LIFE TO ADULTHOOD
E HAUS
Department of Laboratory Medicine and Pathology, University of Minnesota; HealthPartners Medical Group; Department of Pathology, Regions Hospital, St. Paul, MN 55101 USA. [Erhard.X.Haus@HealthPartners.com]

16:20 – 16:30 Discussion.

16:30 - 17:00 Coffee break

DOMAIN

WORK, EVERY DAY LIFE

SESSION 4

Chairpersons: Reinberg A., Pati A

SECTION 1: Attention, Performance, Accidents, sport

17:00 – 17:15
CIRCADIAN AND HOMEOSTATIC VARIATIONS IN SUSTAINED ATTENTION
Pablo Valdez, Candelaria Ramirez, Aida Garcia, Javier Talamantes, Juventino Cortez
Laboratory of Psychophysiology, School of Psychology, Universidad Autonoma de Nuevo Leon, Mutualismo #110, Col. Mitras centro, Monterrey, N.L. Mexico 64460. valdez.pa@gmail.com

17:15 – 17:30
EFFECTS OF SLEEP DEPRIVATION DURING THE WEEK ON THE COMPONENTS OF ATTENTION
Candelaria Ramirez, Diana Juarez, Juventino Cortez, Javier Talamantes, Aida Garcia, Pablo Valdez
Laboratory of Psychophysiology, School of Psychology, Universidad Autonoma de Nuevo Leon, Mutualismo #110, Col. Mitras centro, Monterrey, N.L. Mexico 64460. canramir@gmail.com

17:30 – 17:45
CIRCADIAN VARIATION IN 10- AND 60-S INTERVAL PRODUCTION IN YOUNG SUBJECTS IN 30-H CONSTANT ROUTINE
Babita Pande, Arti Parganiha and Atanu Kumar Pati
School of Life Sciences, Pt. Ravishankar Shukla University, Raipur – 492 010, INDIA
17:45 – 18:00
RHYTHMS IN SPORT ACCIDENTS OF CHILDREN WITH SPECIAL REFERENCE TO SEX-RATIO RHYTHMS AS WELL AS MIDDAY ATTENTION TROUGH
Olivier Reinberg (1), Alain Reinberg (2), Mohamed Mechkouri (2)
1) Department of Pediatric Surgery, University Hospital of Lausanne (CHUV), Lausanne, Switzerland, (2) Chronobiology Unit, Fondation A. de Rothschild, 29 rue Manin. 75940 Paris, cedex 19, France

18:00 – 18:15
COMPARISON OF THE CHARACTERISTICS OF CIRCADIAN RHYTHM IN PHYSIOLOGICAL VARIABLES BETWEEN NATIONAL LEVEL VOLLEYBALL PLAYERS OF SCHOOL GAMES FEDERATION OF INDIA EXHIBITING DIFFERENT LIFE STYLE PATTER
Hrishikesh Patel1, Omji Gupta1, Reeta Venugopal1 and Atanu Kumar Pati2
1) School of Studies in Physical Education, Pt. Ravishankar Shukla University, Raipur – 492 010.
2) School of Life Sciences, Pt. Ravishankar Shukla University, Raipur – 492 010

SECTION 2: Shift work I, Desynchronization

18:15 – 18:30
RELEVANCE OF SCHEDULED FEEDING TO PREVENT INTERNAL DESYNCHRONY IN A RAT MODEL OF NIGHT WORK
Carolina Escobar, Roberto Salgado, Manuel Angeles Castellanos, Katia Rodriguez, and Ruud M Buiks
1) Departamento de Anatomia Fac de Medicina UNAM and 2) Departamento de Biologia Celular y Fisiologia, Instituto de Investigaciones Biomédicas UNAM; México DF.

18:30 – 18:45
A 10 YEAR SPAN REGULAR SPORT ACTIVITY PREVENTS RHYTHMS’ DESYNCHRONIZATION OF ORAL TEMPERATURE AND BOTH HAND GRIP STRENGTH IN NIGHT WORKERS
B. Mauvieux (1), A. Reinberg (2), L. Gouthière (3), B. Sesboué (4) and D. Davenne (1)

18:45 – 19:00
AVAILABILITY OF NAP DURING NIGHT SHIFTS OFFERS PROTECTION AGAINST DETERIORATION OF THE CLOCK FUNCTION IN SHIFT WORKERS
Rakesh Kumar Soni, Anjana Kar, Rohit Kumar Pradhan, Arti Parganiha and Atanu Kumar Pati
School of Life Sciences, Pt. Ravishankar Shukla University, Raipur – 492 010, INDIA

19:00 – 19:15
BODY WEIGHT, DURATION OF SHIFT WORK EXPOSURE AND AGE
A. Reinberg (1), B. Mauvieux (2), E. Haus (3)
(1) Unité de Chronobiologie: Fond A.de Rothschild, Paris ; (2) ESPRI INSERM EA 3917, Mobilités: Cognition et Temporalité, UFR STAPS Université de Caen ; (3) Health Partners Medical Group, St. Paul, MN [USA].

END OF SECOND DAY
TUESDAY MAY 19

Breakfast

DOMAIN

HYPERTENSION

SESSION 5

HYPERTENSION I
CHRONOBIOLGY, CHRONOTHERAPY

Chairpersons: Hermida R, Portaluppi, F

08:30 – 09:00
CIRCADIAN BLOOD PRESSURE VARIABILITY: WHAT DETERMINES CARDIO-VASCULAR RISK?
Francesco Portaluppi,
Hypertension Center, University Hospital S. Anna, Ferrara, Italy

09:00 – 09:30
PREVALENCE OF AN ALTERED BLOOD PRESSURE PATTERN. INFLUENCE OF AGE, DIABETES AND TIME OF TREATMENT ON BLOOD PRESSURE REGULATION.
M.H. Smolensky., Ph.D.
Circadian Medicine International, 808 Lakewood Hills Terrace, Austin, TX 78732.

0930: - 10:00
CHRONOTHERAPY WITH BLOOD PRESSURE-LOWERING MEDICATIONS.
D.E. Ayala, MD, Ph.D.
Bioengineering & Chronobiology Labs., University of Vigo, Vigo, Spain.

10:00 – 10:30
CHRONOTHERAPY FOR CARDIOVASCULAR RISK REDUCTION.
R.C. Hermida, Ph.D.
Bioengineering & Chronobiology Labs., University of Vigo, Vigo, Spain.

10:30 – 11:00 Coffee break

11:00 – 11:15
METABOLIC SYNDROME AND MORNING TREATMENT AS INFLUENTIAL FACTORS FOR A BLUNTED NOCTURNAL DECLINE OF BLOOD PRESSURE IN TREATED HYPERTENSIVE PATIENTS.
Bioengineering & Chronobiology Labs., University of Vigo, Vigo, Spain.

11:15 – 11:30
ADMINISTRATION-TIME DEPENDENT EFFECTS OF NIFEDIPINE GITS ON MORNING BLOOD PRESSURE SURGE IN ESSENTIAL HYPERTENSION
Bioengineering & Chronobiology Labs., University of Vigo, Vigo, Spain; *Urgencias Sanitarias 061 Galicia, Orense, Spain.
11:30 – 11:45
CHRONOTHERAPY WITH THE ACE-INHIBITOR RAMIPRIL IN ESSENTIAL HYPERTENSION: IMPROVED BLOOD PRESSURE CONTROL WITH BEDTIME ADMINISTRATION.
Bioengineering & Chronobiology Labs., University of Vigo, Vigo, Spain; *Urgencias Sanitarias 061 Galicia, Orense, Spain.

11:45 – 12:00
AMBULATORY BLOOD PRESSURE REDUCTION AFTER BEDTIME ASPIRIN ADMINISTRATION IN PREHYPERTENSIVE SUBJECTS.
Bioengineering & Chronobiology Labs., University of Vigo, Vigo, Spain.

DOMAIN
CHRONOTHERAPY
Depression
Multiple Sclerosis
Resistant Hypertension
Chronic Kidney Disease

SESSION 6
Chairperson: Haus E

12:00 – 12:15
CHRONOTHERAPY FOR MULTIPLE SCLEROSIS: ASSESSMENT OF NIGHTTIME VERSUS DAYTIME COURSE OF I.V. CORTICOSTEROID TREATMENT FOR ACUTE RELAPSE
L. Glass-Marmor, T. Paperna, Y. Ben-Yosef, S. Dishon, A. Miller
The Neuroimmunology Unit and Multiple Sclerosis Center,
Carmel Medical Center (Haifa, IL)

12:15 – 12:30
CLINICAL MARKERS OF THE SLEEP-TIME RELATIVE BLOOD PRESSURE DECLINE IN PATIENTS WITH TRUE RESISTANT HYPERTENSION
Bioengineering & Chronobiology Laboratories, University of Vigo, Vigo, Spain; *Urgencias Sanitarias 061 Galicia, Orense, Spain

12:30 – 12:45
A NOVEL TERAPEUTIC TARGET FOR PREVENTING CHRONIC KIDNEY DISEASE: TO INCREASE THE AWAKE/ASLEEP BLOOD PRESSURE RATIO THE MAPEC STUDY
Bioengineering & Chronobiology Laboratories, University of Vigo, Vigo, Spain; *Urgencias Sanitarias 061 Galicia, Orense, Spain
12:45 – 13:00
CHROMOTHERAPY IN THE REGULATION OF NEUROHORMONAL BALANCE IN HUMAN BRAIN – COMPLEMENTARY APPLICATION IN MODERN PSYCHIATRIC TREATMENT
Sanja Radeljak¹, Tija Žarković-Palijan, Dražen Kovačević, Marina Kovač
Department of Forensic Psychiatry, Neuropsychiatric Hospital “Dr. Ivan Barbot”
Popovača, Croatia

13:15 – 14:30 Lunch

14:30 –

Tour (Zippori, Nazareth).

Dinner in Nazareth

END OF THIRD DAY
WEDNESDAY MAY 20

Breakfast

DOMAIN

EPIGENETIC ENVIRONMENT

SESSION 7

Introducer: Ashkenazi I.

08:30 – 09:10
THE DYNAMIC EPGENOME; AN INTERFACE BETWEEN THE DYNAMIC ENVIRONMENT AND THE GENOME
Moshe Szyf
Department of Pharmacology and Therapeutics McGill University 3655 sir William Osler promenade Montreal Canada H3G1Y6

09:10 – 09:50
CIRCADIAN ACTIVITY RHYTHMS IN DWARF HAMSTERS (Phodopus spec.) - COMPARATIVE STUDIES UNDER STANDARDIZED AND SEMI-NATURAL CONDITIONS
Dietmar Weinert¹, Konrad Schottner¹, Alexey V. Surov², Peter Fritzsche¹, Natalya Yu. Feoktistova², Maria Ushakova², Georgij B. Ryurikov²
¹ Institute of Biology, Department of Zoology, Martin-Luther-University, Halle-Wittenberg, Germany; ² A.N. Severtsov Institute of Ecology and Evolution Russian Academy of Sciences, Moscow, Russia

09:50- 10:30
CIRCADIAN DISRUPTION AND CARCINOGENESIS – MECHANISTIC CONSIDERATIONS
Erhard Haus.
Department of Laboratory Medicine and Pathology, University of Minnesota; HealthPartners Medical Group: Department of Pathology, Regions Hospital, St. Paul, MN 55101 USA.
[Erhard.X.Haus@HealthPartners.com]

10:30 – 11:00 Coffee Break

11:00 – 11:15
PHOTOPERIOD MANIPULATIONS, MELATONIN TREATMENT AND DEVELOPMENT OF BREAST CANCER IN BALB/C MICE
Pilosof Yonit⁴, Haim Abraham² and Fuad Fares³
Department of Evolutionary & Environmental Biology, University of Haifa, Mount Carmel Haifa 31905, Israel
X
11:15 – 11:35
MELATONIN AND CORTISOL PROFILES IN PATIENTS WITH PITUITARY TUMORS
Daniel Zielonka¹, Teresa Torlińska², Justyna Kupsz², Jerzy Sowiński³, Stanisław Nowak⁴,
Joanna Skoracka², Anna Ciesielska¹, Jerzy Marcinkowski¹
¹Department of Social Medicine, ²Department of Physiology, Laboratory of Circadian Rhythms,
³Department of Endocrinology, ⁴Department of Neurosurgery
Poznań University of Medical Sciences, Poland

11:35 – 11:50
LIGHT THERAPY STRENGTHENS CIRCADIAN RHYTHMS IN WOMEN UNDERGOING
CHEMOTHERAPY FOR BREAST CANCER
Ariel B. Neikrug¹,2, Michelle Rissling¹,2, Lianqi Liu², Loki Natarajan³, Feng He³, Vera
Trofimenko², Sue Lawton², Lianne Tomfohr¹, Yolanda De La Torre², Sonia Ancoli-Israel¹,2
¹SDSU/UCSD Joint Doctoral Program in Clinical Psychology
²Department of Psychiatry, University of California San Diego
³Department of Family and Preventive Medicine, University of California San Diego

12:50 – 12:05
QUALITY OF LIFE AND ANXIETY & DEPRESSION LEVELS IN A MIXED COHORT OF
CANCER IN-PATIENTS: RELATIONSHIP WITH CIRCADIAN RHYTHM PARAMETERS
Anjana Kar, Anil Ramteke, Rakesh Kumar Soni, Arti Parganiha and Atanu Kumar Pati
School of Life Sciences, Pt. Ravishankar Shukla University, Raipur – 492 010, INDIA

DOMAIN

HYPERTENSION II
Hypertension
Theoretical Medicine
Quality of life

SESSION 9

Chairperson: Ayala D.

12:05 -12:20
EFFECTS OF TREATMENT-TIME ON THE AMBULATORY BLOOD PRESSURE PATTERN
AND CLINICAL CHARACTERISTICS OF PATIENTS WITH RESISTANT HYPERTENSION
Fernández
Bioengineering & Chronobiology Laboratories, University of Vigo, Vigo, Spain. *Urgencias
Sanitarias 061 Galicia, Orense, Spain

12:20 – 12:35
EFFECTS ON AMBULATORY BLOOD PRESSURE OF CHRONOTHERAPY WITH
TELMISARTAN-HYDROCHLOROTHIAZIDE COMBINATION IN ESSENTIAL
HYPERTENSION.
Bioengineering & Chronobiology Labs., University of Vigo, Vigo, Spain; *Urgencias Sanitarias
061 Galicia, Orense, Spain.
12:35 – 12:50
"THEORETICAL MEDICINE" OR A “MUST” OF GOOD PRACTICE IN TREATING HYPERTENSION: CHRONOTHERAPY IN ROMANIA
H. Balan, D. Donciu, E. Popescu
University of Medicine and Pharmacy “Carol Davila” – Romania, Bucharest Dionisie Lupu street, nr. 37, 021103

12:50 – 1:05
DOES THE CHRONOTHERAPY OF HYPERTENSION GENERATE A BETTER QUALITY OF LIFE (QOL)?
H. Balan, D. Donciu, E. Popescu, G. Angelescu
University of Medicine and Pharmacy “Carol Davila” - Romania, Bucharest Dionisie Lupu street, nr. 37, 021103

13:05 – 15:00     Lunch

DOMAIN

MELATONIN

Shift work
Light Intensity
Injury
Drug metabolism
Environmental stress
Corticosteroids

SESSION 10

Chairperson: Touitou Y

15:00 – 15:20
CIRCADIAN RHYTHMS IN URINARY CORTISOL AND 6-SULFATOXY MELATONIN IN BRAZILIAN NURSES ON DAY AND NIGHT SHIFTS
Fischer FM(1), Borges FNS(1), Fonseca MB(1), Moreno CRC(1), Benedito-Silva AA(2), Pires MLN(3), Rotenberg L(4), Smolensky MH(5), Sackett-Lundeen L(6), Haus E(6).
(1)Dept Environmental Health, School of Public Health, University of Sao Paulo, Sao Paulo, Brazil; (2)EACH, University of Sao Paulo, Sao Paulo, Brazil; (3)UNESP, Psychology Dept, Assis, SP, Brazil; (4)Laboratory of Education and Environment, FIOCRUZ, Rio de Janeiro, RJ, Brazil; (5)School of Public Health, University of Texas, Houston, USA; (6)Univ of Minnesota/HealthPartners Research Foundation, Minnesota, St. Paul, USA. [fmfische@usp.br]

15:20 – 15:35
EFFECT OF LIGHT INTENSITY ON DAILY RHYTHMS IN URINARY MELATONIN EXCRETION OF SIGHTED AND UNSIGHTED RODENTS
Zubidat Abed Elsalam1, Randy J Nelson2 and Haim Abraham1,3
1Department of Evolutionary and Environmental Biology, University of Haifa, Haifa, Israel
2Departments of Psychology and Neuroscience, Institute for Behavioral Medicine Research, 49 Psychology Building, The Ohio State University, Columbus, OH 43210 USA
3Department of Biology, University of Haifa – Oranim, Kiryat Tivon 36006, Israel
15:35 – 15:50
RHYTHMS OF SERUM MELATONIN IN RATS WITH ACUTE SPINAL CORD INJURY AT THE CERVICAL AND THORACIC REGIONS
Ali Riza Gezici, Rüçhan Ergün, Alper Karakaş, Bülent Gündüz
Department of Neurosurgery, Faculty of Medicine, Department of Biology, Faculty of Arts and Sciences, Abant Izzet Baysal University, Bolu, Department of Biology, Faculty of Arts and Sciences, Çanakkale Onsekiz Mart University, Çanakkale, Turkey

15:50 – 16:05
MELATONIN AS A SCAVENGER OF FREE RADICALS IN THE MACROALGAE ULVA sp. UNDER ENVIRONMENTAL STRESSES
Ofir Tal, Orna Harel, Abraham Haim
Faculty of Science and Science Education, University of Haifa, Mount Carmel 31905

16:05 – 16:20
DUAL EFFECT OF CORTICOSTERONE ON THE SYNTHESIS OF MELATONIN BY PINEAL GLANDS IS DEPENDENT ON THE ACTIVATION OF BETA OR BETA + ALPHA ADRENOCEPTORS
Markus, R.P., Fernandes, P.A.C.M. and Monteiro, A.A. – Lab. Chronopharmacology, Institute Bioscience – University of São Paulo – Rua do Matão - 05508-900 – SP, Brazil – rpmarkus@usp.br

16:20 – 17:10 Coffee Break

POSTERS

Genes, Molecular Biology - Photo-periodic effects- Stress - Season, Drugs Chronophysiologiy, Chronotherapy

SESSION 11

17:10 – 19:30
Commenter: Will be assigned on the first day of the conference.

All posters are placed in the lectures' hall. The presenting author will deliver a concise description of the study (app. 5 min) which will be followed by a short discussion. Discussion narrators will be assigned

Genes-Molecular Biology

EXPRESSION OF HUMAN β-DEFENSIN 1 IS REGULATED VIA C-MYC AND THE BIOLOGICAL CLOCK
Hadas Sherman And Oren Froy
Institute of Biochemistry, Food Science and Nutrition, Robert H Smith Faculty of Agriculture, Food and Environment, The Hebrew University of Jerusalem, P.O Box 12, Rehovot 76100, Israel

THE ZEBRAFISH PINEAL GLAND TRANSCRIPTOME: A FOCUS ON CIRCADIAN GENES
Tovin Adi, Alon Shahar and Gothilf Yoav
Department of Neurobiology, George S. Wise Faculty of Life Sciences, Tel Aviv University, Tel Aviv, Israel

XIII
NOVEL BZIP TRANSCRIPTION FACTORS AND THE CIRCADIAN CLOCK IN ZEBRAFISH
Zohar Ben-Moshe, Gad Vatine and Yoav Gothilf
Department of Neurobiology, Faculty of Life Sciences, Tel Aviv University, Tel Aviv, Israel

UNC119 IN PINEAL GLAND BIOLOGY AND CIRCADIAN CLOCK FUNCTION
Nir Reany, Shahar Alon and Yoav Gothilf
Department of Neurobiology, Tel Aviv University

IS THE MATURE RHYTHM OF A VARIABLE SET AT ITS TRANSCRIPT LEVEL?
Leah Peleg, Yuval Weigl, Israel E. Ashkenazi.
\(^a\)The Danek Gertner, Institute of Human Genetics, Sheba Medical Center, Israel.
\(^b\)Unit of Chronobiology, Department of Human Genetics and Molecular Medicine, Sackler School of Medicine, Tel Aviv University, Tel Aviv.

Photo-periodic effects

OXYGEN CONSUMPTION RHYTHM, 6-SULFATOMELATONIN AND CORTISOL LEVELS IN SD-ACCLIMATED GOLDEN SPINY MICE ACCOMYS RUSSATUS, EXPOSED TO LONG AND SHORTTERM LIGHT INTERFERENCE.
Lilach Ashkenazi, Orna Harel and Abraham Haim
Laboratory of Chronobiology and Ecophysiology, Department of Evolutionary and Environmental Biology, University of Haifa, Mount Carmel,

A MULTISTAGE CHRONOBIOLOGIC INTERVENTION FOR THE TREATMENT OF DEPRESSION: A PILOT STUDY
L. Moscovici, M. Kotler,
The Research Unit, Beer-Yaakov Mental Health Hospital, affiliated to the Sackler Faculty of Medicine, Tel-Aviv University, Tel-Aviv, Israel email:

DEPRESSION- AND ANXIETY-LIKE BEHAVIORS INDUCED BY SHORT DAYLIGHT CYCLE IN TWO DIURNAL RODENTS: THE FAT SAND RAT AND THE NILE GRASS RAT, AND THE POSITIVE EFFECT OF BRIGHT LIGHT TREATMENT
Ashkenazi T, Kronfeld-Schor N, Einat H
\(^1\)Department of Zoology, Tel-Aviv University, Tel Aviv, Israel; \(^2\)College of Pharmacy, Duluth, University of Minnesota, , MN, Usa.

FOOD ANTICIPATORY ACTIVITY IN MONGOLIAN GERBILS (*Meriones unguiculatus*)
Alper Karakas, Bülent Gündüz
karakas_a@ibu.edu.tr
\(^1\)Department of Biology, Faculty of Arts and Sciences, Abant İzzet Baysal University, Bolu, \(^2\)Department of Biology, Faculty of Arts and Sciences, Çanakkale Onsekiz Mart University, Çanakkale, Turkey

THE RESPONSE OF THE THERMOREGULATORY SYSTEM TO PHOTOPERIOD MANIPULATION IN GOLDEN SPINY MOUSE (*ACOMYS RUSSATUS*) -THE NEUROENDOCRINE CONTROL OF MOLECULAR PROCESSES FUNCTION
Ala Jbara, Orna Harel, & Avraham Haim
Laboratory of chronobiology and ecophysiology, Department of Eevolutionary & Environmental biology, university of Haifa, Mount Carmel, Haifa 31905
THE EFFECT OF NIGHT ILLUMINATION WAVE LENGTH ON GROWTH OF PROSTATE TUMORS

Basem Fares and Abraham Haim
Department of Biology Science Education University of Haifa Oranim, P.O. Kiryat Tivon 36006 Israel

Stress

DAY/NIGHT VARIATIONS IN OXIDATIVE STRESS MARKERS IN THE RAT HARDERIAN GLAND

Yasmina Djeridane¹, Dominique Bonnefont-Rousselot², and Yvan Touitou³
¹Faculté de Médecine Pierre et Marie Curie, Service de Biochimie Médicale et Biologie Moléculaire and INSERM U713, Paris, France; ²UF de Biochimie des Maladies Métaboliques, Groupe Hospitalier Pitié-Salpêtrière, Paris, France

THE EFFECT OF EXPOSURE TO STRESS IN JUVENILITY ON STRESS HORMONES, ADRENAL AND TESTIS WEIGHT IN RATS

Frank T., Cohen N. and Richter-Levin G.
The Institute for the Study of Affective Neuroscience and Department of Neurobiology, University of Haifa, Haifa 31905, Israel

CAN STRESS PROTECT US FROM INFLAMMATION?

Anunu R, Haim A, Shtoots L, and Richter Levin G
The Institute for the Study of Affective Neuroscience and Department of Neurobiology, University of Haifa, Israel

Season, Drug

SEASONAL DIFFERENCES IN SLEEP-WAKE PATTERNS IN INFANTS

Dina Cohen & Anat Scher
Faculty of Education, University of Haifa, Israel

CHRONOTHERAPY OF PATIENTS WITH SILENT MYOCARDIAL ISCHEMIA ON THE BACKGROUND OF DIABETES MELLITUS TYPE II WITH MONO Mack
Zaslavskaya R., Tulemisova G., Aitmagambetova B.
Hospital №60, Moscow, Russia; West Kazakhstan State Medical Academy, Aktobe, Kazakhstan

24 H RHYTHM IN MALONDIALDEHYDE (MDA) CONTENT ON MURINE LIVER AFTER LORATADINE ADMINISTRATION

Malek Channoufi¹,², Sani Maman², Mosadok Ben Attia², Naceur A. Boughattas³.
1- Pharmacology laboratory, Faculty of Medicine, Monastir - Tunisia
2- Environnement Biosurveillance Laboratory, Faculty of Sciences, Bizerte, 7021 Zarzouna, Tunisia

BIOLOGICAL SCREENING OF MELATONIN HORMONE FOR ANTIBACTERIAL AND ANTITUMOR ACTIVITIES

Fatma Pehlivan Karakaş, Alper Karakaş, Arzu Uçar Türker
Department of Biology, Faculty of Arts and Sciences, Abant Izzet Baysal University, 14280, Bolu, TURKEY
ACID-BASE BALANCE AND ARTIFICIAL CONTROLLED VENTILATION IN WISTAR RATS: CHRONOPHYSIOLOGICAL VIEW
Švorc P, Bracokova I, Bacova I, Svorcova E
Department of Physiology, Medical Faculty UPJS, †Department of Haematology and Oncohaematology Faculty Hospital, tr. SNP 1, 040 01 Kosice, Slovak Republic

BRIGHT LIGHT THERAPY FOR SEASONAL AFFECTIVE DISORDER IN ISRAEL (LATITUDE 32.6°N): A SINGLE CASE PLACEBO-CONTROLLED STUDY
L. Moscovici
Department of Psychiatry, Tel Aviv Sourasky Medical Center, Sackler Faculty of Medicine, Tel Aviv University, Tel Aviv, Israel

Companies' posters

TECHNIQUE TO ENHANCE MELATONIN PRODUCTION BY THE PINEAL GLAND
Richard Hanslera,b, Martin Alpertb, Edward Caromea,b and Vilnis Kubulinsa,b
(a) Lighting Innovations Institute, John Carroll University, Cleveland, Ohio, USA
(b) Photonic Developments LLC, Cleveland, Ohio, USA
rhansler@jcu.edu
(the abstract of this presentation is located on page 101 of Abstracts' book)

THE MOTIONLOGGER® ACTIGRAPH AND ITS APPLICATION IN CHRONOBIOLOGY RESEARCH
Thomas Kazlausky, M.ChE.,
President - Ambulatory Monitoring, Inc.
(the abstract of this presentation is located on page 102 of Abstracts' book)

Mailed Poster
EFFECTS OF SEDATIVE DOSES OF MEDETO MIDINE ON SOKOTO RED GOATS DURING TWO SEASONS OF THE YEAR
Onifade K. .I. †Arowolo R.O. A. †and Huhtinen M.†
Department of Veterinary Physiology and Pharmacology
1. Usmanu Danfodiyo University Sokoto, Nigeria, †.2.University of Ibadan, Ibadan, Nigeria
3. Orion Pharma Corporation, Turku, Finland
(the abstract of this presentation is located on page 103 of Abstracts' book)

END OF FOURTH DAY
THURSDAY MAY 21

Breakfast

DOMAIN

LIGHT
Cancer
Immune functions and metabolism

SESSION 12

Introducer: Haim A

08:30 – 09:15
CIRCADIAN DISRUPTION AND THE GLOBAL PANDEMIC OF BREAST CANCER
Richard G. Stevens
UConn Health Center, Farmington, CT, USA

09:15 – 10:00
CONSTANT LIGHT INCREASES BODY MASS AND AFFECTS IMMUNE FUNCTION
Randy J. Nelson, James C. Walton, Laura K. Fonken, Joanna L. Workman, Zachary M. Weil & Abraham Haim*
Departments of Psychology & Neuroscience, Ohio State University, Columbus, OH 43210 USA
*Department of Biology, University of Haifa at Oranim, Tivon 36006 Israel

DOMAIN

CHRONOPHARMACOLOGY

SESSION 13

Chair Persons: Zengil H.

10:00 – 10:15
TEMPORAL VARIATION IN THE INTERACTION BETWEEN FINASTERIDE AND MORPHINE-INDUCED ANALGESIA
Ozlem Sesyilmaz and Hakan Zengil
Department of Medical Pharmacology, Gazi University Faculty of Medicine, Ankara, Turkey

10:15 – 10:30
CIRCADIAN ACTIVITY RHYTHMS ARE ASSOCIATED WITH PRO-INFLAMMATORY CYTOKINES AMONG OLDER ADULTS IN POST-ACUTE REHABILITATION
Jennifer L. Martin,1 Stella Jouldjian,2 Sergio Martinez,2 Lavinia Fiorentino,3 Karen R. Josephson,2 Michael R. Irwin,3 and Cathy A. Alessi1,2
1David Geffen School of Medicine, University of California, Los Angeles; 2Veterans Administration Greater Los Angeles Healthcare System, Geriatric Research, Education & Clinical Center; 3UCLA Cousins Center for Psychoneuroimmunology
10:30 – 10:45
EFFECT OF MELATONIN ON VASCULAR SENSITIVITY TO SODIUM NITROPRUSSIDE
Elif Vural and Hakan Zengil
Department of Medical Pharmacology, Gazi University Faculty of Medicine, Ankara, Turkey

10:45 - 11:00
EFFECT OF MELATONIN ON VASCULAR SENSITIVITY TO PHENYLEPHRINE AND 5-HYDROXYTRYPTAMIN
Elif Vural and Hakan Zengil
Department of Medical Pharmacology, Gazi University Faculty of Medicine, Ankara, Turkey

11:00 - 11:30 Coffee break

DOMAIN
HYPERTENSION III
SESSION 14

Chairperson: Hermida R

11:30 – 11:45
ADMINISTRATION-TIME DEPENDENT EFFECTS ON AMBULATORY BLOOD PRESSURE ON THE ACE-INHIBITOR SPIRAPRIL IN ESSENTIAL HYPERTENSION.
D.E. Ayala, R.C. Hermida, L. Chayán*, A. Mojón, J.R. Fernández
Bioengineering & Chronobiology Labs., University of Vigo, Vigo, Spain; *Urgencias Sanitarias 061 Galicia, Orense, Spain.

11:45 - 12:00
LONG SLEEPERS TEND TO BE NONDIPPERS: IS IT A PARADOX?
Atanu Kumar Pati, Anjana Kar, Razia Sultana, Nishtha Vaidya and Arti Parganiha
School of Life Sciences, Pt. Ravishankar Shukla University, Raipur – 492 010, INDIA

12:00 - 12:15
CHRONOTHERAPY IN HYPERTENSION: MORNING VS. EVENING ADMINISTRATION OF ZOFENOPRIL
H. Balan, D. Donciu , G. Angelescu
University of Medicine and Pharmacy “Carol Davila” –Romania, Bucharest Dionisie Lupu street, nr. 37, 021103

12:15 – 12:30
RELATIONSHIP BETWEEN PLASMA FIBRINOGEN AND AMBULATORY BLOOD PRESSURE IN UNCOMPLICATED ESSENTIAL HYPERTENSION
Bioengineering & Chronobiology Labs., University of Vigo, Vigo, Spain.

12:30 – 14:00 Lunch
SESSION 15

Introducer Dagan Y

14:00 – 14:35
LONGITUDINAL ASSESSMENT OF SLEEP, FATIGUE AND SLEEP-WAKE ACTIVITY
RHYTHMS IN BREAST CANCER
Sonia Ancoli-Israel, PhD
Gillin Sleep and Chronobiology Center, Department of Psychiatry, University of California San Diego

SESSION 15a

Chairpersons: Fischer F, Dagan Y

14:35 – 14:50
EVENINGNESS, SLEEP HABITS, DAYTIME FUNCTIONING, AND QUALITY OF LIFE IN
ISRAELI ADOLESCENTS
Tamar Shochat1,2 and Orna Tzischinsky3
1Department of Nursing, University of Haifa 2Department of Psychology, Kinneret College on the
Sea of Galilee 3Department of Behavioral Sciences, Emek Yezreel College

14:50 – 15:10
EEG INDICATORS OF TWO DISTINCT RESPONSES OF SLEEP-WAKE REGULATION TO
SLEEP LOSS AND THEIR RELATIONSHIP WITH SLEEPINESS, SLEEP HISTORY,
CHRNOTYPE, SOMNOTYPE AND TROTOTYPE
Arcady A. Putilov, Olga G. Donskaya, Evgeniy G. Verevkin, Mark B. Shtark
Research Institute for Molecular Biology and Biophysics, Siberian Branch of the Russian
Academy of Medical Sciences, 2, Timakova Street, 630117 Novosibirsk, Russia

15:10 – 15:35
REPORTED SLEEP COMPLAINTS ARE NOT CORROBORATED BY OBJECTIVE
MONITORING IN NURSES’ WORKING SHIFTS
Tzischinsky, O1,.2, Epstein, R2,. Adami, H3,.4, & Lavie, P2.
1Emek Yezreel Academic College; Emek Yezreel, Israel; Sleep Laboratory, Technion-Israel
Institute of Technology, Haifa, Israel; 4Nursing Department, University of Haifa, Israel
15:35 - 15:50
ADJUSTMENT IN THE PATTERN OF ACTIVITY DURING LEISURE, SLEEP AND WORK AS FUNCTION OF SHIFT IN ROTATIONAL SHIFT WORKERS
Arti Parganiha, Rakesh Kumar Soni and Atanu Kumar Pati
School of Life Sciences, Pt. Ravishankar Shukla University, Raipur – 492 010, INDIA

15:50 - 16:05
ASSOCIATED FACTORS OF WORKING TIME AND FATIGUE AMONG COLLEGE STUDENTS
Fischer FM(1), Nagai R(1), Moreno CRC(1), Lowden A (2), da Luz AA(1), de Paula LRP(1), Turte SL(1), Conceição AB (1), Mussi MH (1), Soares NS (1) Fonseca MB(1), Steluti J(1), Teixeira LR(3)
(1) Department of Environmental Health, School of Public Health, University of São Paulo (USP) São Paulo, Brazil. (2) Stress Research Institute, Stockholm University, Stockholm, Sweden. (3) National School of Public Health, FIOCRUZ, Rio de Janeiro, Brazil

16:05 – 16:30 Coffee Break

16:30 – 16:50
COMPARISON OF THE EFFECTS OF BEDROOM CURTAIN AND EVENING-LIGHTING ON CIRCADIAN TYPOLOGY BETWEEN JAPANESE INFANTS AGED 1-6 YRS AND STUDENTS AGED 18-25 YRS.
Tetsuo Harada1), Risa Nishihara1), Aska Kondo1), Kai Wada1), Teruki Noji2), Miyo Nakade1,3), Hitomi Takeuchi1)
Laboratory of Environmental Physiology1), Department of Physical Education2), Faculty of Education, Kochi University; Department of Food and Nutrition, Aichi Gakusen College3), Japan

16:50 - 17:05
MASKING EFFECT OF LIGHT AND DARKNESS IN COMMON AND GOLDEN SPINY MICE
Rotem Cohen1, Laura Smale2 and Noga Kronfeld-Schor4
1: Department of Zoology, Tel Aviv University, Tel Aviv, Israel 69978.
2: Department of Psychology, Department of Zoology and Neuroscience program, Michigan State University, East Lansing Michigan, MI, 48824, USA.
17:05 - 17:20
LIGHT PULSE-INDUCED ALA-S GENE EXPRESSION IN THE RAT HARDERIAN GLAND
YASMINA DJERIDANE¹, SAÏD LYOUNI², HERVÉ PUY², AND YVAN TOUITOU¹
¹Faculté de Médecine Pierre et Marie Curie, Service de Biochimie Médicale et Biologie Moléculaire and INSERM U713, Paris, France; ²Centre de Recherche Biomédicale Bichat-Beaujon, INSERM Unité 773, Paris, France.
e-mail: yasmine_75013@yahoo.com

17:20 – 17:35
ESTABLISHING THE FAT SAND RATS AS AN ANIMALS MODEL FOR CIRCADIAN RHYTHMS RESEARCH
Schwimmer Hagit¹, Mursu Netta², Haim Abraham¹
¹Department of Biology, University of Haifa, Israel; ²Department of Biology, University of Oulu, Finland; email: hagitsc@research.haifa.ac.il

17:35 - 17:50
THE MECHANISM OF REPRODUCTION SCHEDULING IN THE GOLDEN SPINY MOUSE ACOMYS RUSSUATUS
Israel Ben Zaken (¹), Orna Harel, Fuad Fares and Abraham Haim
Department of Evolutionary and Environmental Biology, University of Haifa, Mount Carmel Haifa 31905, Israel

17:50 – 18:20 Coffee Break

18:20 - 18:35
INFLUENCE OF MOONLIGHT ON THE CHARACTERISTICS OF LOCOMOTOR ACTIVITY RHYTHM IN INDIAN WALKING CATFISH, CLARIAS BATRACHUS
Anil Kumar Ramteke and Atanu Kumar Pati
School of Life Sciences, Pt. Ravishankar Shukla University, Raipur – 492 010, India

18:35 – 18:55
CIRCADIAN EFFECTIVENESS OF SOLAR AND ARTIFICIAL RADIATION IN DEPENDENCE ON AGE
H. Piazena¹, L. Franke¹, D. Kockott² and R. Uebelhack¹
¹Klinik für Psychiatrie und Psychotherapie der Charité, Berlin, Germany
²Dr. D. Kockott UV-Technik, Hanau, Germany

18:55 - 19:15
DIFFERENCES IN GROWTH RATE OF COLORECTAL AND PROSTATE CANCER IN VIVO AS RESPONSE TO LIGHT MANIPULATION
Fuad Fares, Ortal Raz, Adina Yoklir and Abraham Haim
Department of Evolution and Environmental Biology, Faculty of Science, University of Haifa, Mount Carmel, Haifa 31095, Israel

19:15 – 19:30
THE GLOBAL CO-DISTRIBUTION OF LIGHT AT NIGHT (LAN) AND CANCERS OF LUNG, COLON AND PROSTATE IN MEN
Itai Kloog¹, Abraham Haim², Richard G. Stevens² and Boris A. Portnov¹
¹Department of natural resources & environmental management, university of Haifa, mount Carmel 31905, Haifa, Israel ²Department of evolutionary and environmental biology, university of Haifa, mount Carmel 31905, Haifa, Israel
³University of Connecticut health center, Farmington, CT, USA
END OF FIFTH DAY

FRIDAY MAY 22

Breakfast

DOMAIN

GENDER

SEASONALITY

OPTIMALITY

SESSION 17

Chairperson: Portaluppi F

08:30 - 08:45
GENDER DIFFERENCES IN THE ADMINISTRATION-TIME DEPENDENT EFFECTS OF ASPIRIN ON AMBULATORY BLOOD PRESSURE IN HYPERPENSIVE SUBJECTS.
Bioengineering & Chronobiology Labs., University of Vigo, Vigo, Spain.

08:45 – 09:00
GENDER DIFFERENCES IN THE ADMINISTRATION-TIME DEPENDENT EFFICACY OF TELMISARTAN ON AMBULATORY BLOOD PRESSURE IN ESSENTIAL HYPERTENSION
Bioengineering & Chronobiology Labs., Univ. Vigo, Vigo, Spain; *Urgencias Sanitarias 061 Galicia, Orense, Spain.

09:00 - 09:15
SEASONALITY IN BLOOD GLUCOSE LEVELS IN DIABETICS
Anne Kershenbaum & Jalal Tarabeia
Department of Epidemiology, Carmel Hospital, Haifa

09:15 - 09:30
CHANGES IN FASTING GLUCOSE ACCORDING TO SEASON AND NOCTURNAL BLOOD PRESSURE DECLINE IN ESSENTIAL HYPERTENSION
Bioengineering & Chronobiology Labs., University of Vigo, Vigo, Spain.

09:30 - 09:45
SEASONAL VARIATION OF PLASMA FIBRINOGEN IN HYPERTENSIVE PATIENTS WITH DIFFERING CIRCADIAN BLOOD PRESSURE PATTERN
Bioengineering & Chronobiology Labs., University of Vigo, Vigo, Spain.

09:45 - 10:00
XXII
ANNUAL PATTERN IN REPORTED SHIGELLOSIS AND SALMONELLOSIS CASES IN TEXAS
J.J. Steinhausen¹, M.H. Smolensky², K. Burau¹, I. Cech¹, R. Hermida³
¹The University of Texas-Houston School of Public Health and ²Circadian Medicine, Int'l.,
³University of Vigo, Vigo Spain

10:00 - 10:25
GENERAL PRINCIPLES OF OPTIMALITY FOR THERAPEUTIC FACTORS INFLUENCES UPON THE HUMAN ORGANISM: THE TIME TO STATE THE PROBLEM
Marina Zueva
Moscow Helmholtz Research Institute of Eye Diseases, 103052, Sadovaya-Chernogriazskaya 14/19, Moscow, Russia,

10:25 - 10:30      Coffee Break

10:30 - 11:30                MEETING
IMPRESSIONS
NEXT CONFERENCE

END OF SIXTH DAY

END OF CONFERENCE