

02-05
APRIL, 2025
Budapest,
Hungary

INTERNATIONAL TEACHING COURSE OF THE EUROPEAN SOCIETY OF NEUROSONOLOGY AND CEREBRAL HEMODYNAMICS - WORLD ORGANISATION OF NEUROSONOLOGY

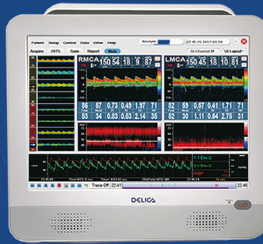
PROGRAM



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INTERNATIONAL TEACHING COURSE OF THE EUROPEAN SOCIETY OF NEUROSONOLOGY AND CEREBRAL HEMODYNAMICS - WORLD ORGANISATION OF NEUROSONOLOGY PROGRAM



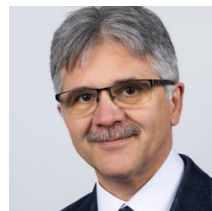
"Project MEC_SZ 149022 has been implemented with the support provided by the Ministry of Culture and Innovation of Hungary from the National Research, Development and Innovation Fund, financed under the MEC_SZ_24 funding scheme."

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International Teaching Course of the European Society of Neurosonology
Cerebral Hemodynamics - World Organisation of Neurosonology
Budapest, Hungary

WELCOME

Dear Colleagues!
Dear Friends,



László Oláh

It is a great pleasure to welcome you to Budapest, at the International Teaching Course of the European Society of Neurosonology and Cerebral Hemodynamics /World Organisation of Neurosonology.

We are pleased to announce that more than 230 participants from numerous countries around the world have registered for the conference, far exceeding our expectations. It is gratifying to see that the development of neurosonology methods and their expanding application to new scientific fields has led to a significant increase in the number of professionals interested in neurosonology and the growing prestige of the field.

The International Teaching Course provides a unique platform for learning new methods and deepening your practical skills in the field of neurosonology. We encourage you to take this opportunity to attend lectures, which emphasize hands-on elements, and take advantage of the practical courses led by renowned experts using real patients. We wish the best of luck to the 70 participants who have registered for the International Certification Exam and are striving to earn the prestigious International Certification in Neurosonology.



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László Csiba

While here, we hope you will not only expand your theoretical and practical knowledge but also enjoy the beauty and culture of Budapest.

Last, but not least, we extend our heartfelt thanks to our colleagues and friends in Budapest, whose invaluable support has been essential in selecting and recruiting the right patients for the hands-on courses. Special thanks also go to the patients who have graciously agreed to participate in the practical sessions and, through their involvement, are helping to enrich the learning experience for all attendees. This conference would not have been possible without the dedication of our instructors, who, despite their busy schedules, accepted our invitation and committed to leading the demanding, hours-long practical sessions.

We hope you leave this course with a wealth of practical knowledge that you can share with your colleagues for the benefit of your patients. Wishing you a productive and enjoyable time here in Budapest!

Sincerely,

László Oláh and László Csiba
local organizers



MEETING COMMITTEES

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László OLÁH
Hungary

Organising Committee Co-Chair

Laszló CSIBA
Hungary

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Conference Secretariat

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02-05
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2025

International Teaching Course of the European Society of Neurosonology Cerebral Hemodynamics - World Organisation of Neurosonology Budapest, Hungary



GENERAL INFORMATION

MEETING VENUE

NET, Semmelweis University, Theoretical Building, Nagyvárud Square 4.

The venue is conveniently accessible by multiple forms of public transportation: Metro Line 3 (Blue Line, M3) and also trams 24 and 3 have stops at Nagyvárud tér, near the university building. Several bus routes also serve this area, including routes 9, 23, 23E, 24, 103, 133E, and 217.

Parking is available in the surrounding streets (in a pay zone).

REGISTRATION DESK OPENING HOURS:

2 April, 2025. 08:00 - 18:30

3 April, 2025. 08:00 - 18:30

4 April, 2025. 08:00 - 16:00

5 April, 2025. 08:00 - 14:00

CONFERENCE BADGES

Only officially registered participants with a badge are allowed to attend the meeting. Badges can be picked up during registration. Please wear your badge throughout the meeting. Both the scientific and the pre-ordered social programmes can be attended with the personal QR code printed on the badge.

SOCIAL EVENTS:

Social events are intended to deepen the interaction and networking between participants and the lecturers. Getting to know your lecturers in informal situations and discussing your experiences with the other participants has a profound effect on how dedicated to neurosonology one will remain. Family atmosphere that brings together current and future ESNCH members was always one of the hallmarks of ESNCH WON meetings.

Tickets for the social programmes were to be ordered in advance, although a limited number of tickets might be offered on site – subject to availability.

DINNER & DANCE on April 3, 8.30 pm – 01.00 am

The event's local organizers will host a "Doppler Dance Dinner" - an informal gathering with colleagues at a stylish, modern restaurant. The restaurant is just steps away from the Palace of Arts and the National Theatre, and conveniently close to the conference venue. The event promises a delightful mix of a dinner and **live music** entertainment, providing the perfect backdrop for an unforgettable evening. A full **buffet dinner** will be served, complemented by **a select range of drinks for limited time**.

Address: Millennium Gardens Kávéház - Lechner Ödön Avenue 10/B, Budapest, H-1095. We recommend to take a taxi to the location. By public transportation it can be reached by Tram nr 23 or 24 (**Haller utca / Soroksári út stop**) and about a 7 minutes walk from there.

Please do not forget to take your badge as entry is only possible with a valid QR code.



DANUBE RIVER CRUISE with dinner on April 4, 8.00 -10.00 pm

Departure and arrival: Harbour 7. Jászai Mari tér (square) H-1137 Budapest. Name of the boat is Sirona. The boat leaves at 8 pm, please arrive on time, preferably 15-20 minutes earlier. We recommend to take a taxi to the location. By public transportation the harbour is easily accessible by Tram nr 2, 4 or 6. (**Jászai Mari tér stop**) and about 8 minutes walk from the station.



Imagine the enchanting fairy tale riverfront of Budapest as you embark on your dinner cruise. On both sides of the Danube, the city glows with beautifully lit landmarks: the majestic Buda Castle, the Hungarian Parliament, the palm-fringed Statue of Liberty, the Art Nouveau Gellért Spa, the Gresham Palace (Four Seasons Hotel), and the magnificent St. Stephen's Basilica. You'll also pass the tranquil, green expanses of Margaret Island in the heart of the Danube. As you cruise through this UNESCO World Heritage site, you'll be surrounded by one of the Danube's sparkling treasures.

On the boat you will be greeted with a refreshing welcome drink, followed by a delicious buffet dinner. A selection of drinks will also be available with a limited drink package to enhance the experience.

Please do not forget to take your badge as entry is only possible with a valid QR code.

IMAGE AND SOUND RECORDING

During the event, image and sound recordings will be made. By accepting the present house rules and participating in the Event, the Participant - without further inquiry - gives their prior and express consent to the recording and publication of the Participant's face, appearance, and expressions at the Event through the making of sound and/or photographic recordings by the Organizer or a professional commissioned by the Organizer, with the understanding that they may only be identified with explicit consent. If the Participant is considered a public figure, they may be identified without their consent. The creator of such recordings acquires unlimited, transferable, and exclusive usage rights regarding the Participant in terms of space, time, and mode of use. The Organizer is subsequently entitled, without restriction, to freely utilize, use (e.g., for promoting the Event), duplicate, publish, modify, disclose, transmit to the public, and distribute the sound and/or image recordings made of and featuring the Participant, in accordance with applicable legal regulations and while respecting personal rights. The Participant is not entitled to any remuneration in advance or retrospectively, and may not make any claims or demands of this nature against the Organizer. Invited speakers' prior written request will be taken into account; in case they have indicated that they do not agree to the recording of the lecture, this will be respected by the organisers.

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International Teaching Course of the European Society of Neurosonology
Cerebral Hemodynamics - World Organisation of Neurosonology
Budapest, Hungary



International Teaching Course
ESNCH/WON 2025

INVITATION

We cordially invite you to attend the open lecture entitled

THE EFFECT OF DEVELOPMENT OF NEUROSONOLOGY ON DIAGNOSIS AND TREATMENT OF STROKE

LECTURER

BRANKO MALOJCIC M.D., Ph.D.

President of the European Society of Neurosonology and Cerebral Hemodynamics
World Organisation of Neurosonology

TIME and PLACE

13:00-13:45, April 2, 2025

**Theoretical Building Of The Semmelweis University
Budapest, Nagyvárud Square 4.**

*Anyone interested is welcome to attend the presentation.
Participation in the open lecture does not require registration.*

MEC_SZ 149022

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PROGRAM OVERVIEW OF THE ITC 2025 - BUDAPEST

	Morning	Afternoon
DAY 1 02 APRIL WEDNESDAY		BASIC LEVEL 13:45-14:00 Welcome and Opening 14:00-17:00 Lectures 17:00-18:30 Hands-on course 20:00- Opening ceremony
DAY 2 03 APRIL THURSDAY	BASIC LEVEL 08:20-11:00 Lectures 11:00-12:30 Hands-on course	ADVANCED LEVEL 13:30-16:00 Lectures 16:00-17:30 Hands-on course INTERNATIONAL CERTIFICATION 17:30-19:30 THEORETICAL PART 20:30- Dinner & Dance
DAY 3 04 APRIL FRIDAY	ADVANCED LEVEL 08:20-10:20 Lectures 10:20-11:50 Hands-on course INTERNATIONAL CERTIFICATION 08:20-10:20 PRACTICAL PART	ADVANCED LEVEL 13:00-14:40 Lectures 14:40-16:10 Hands-on course INTERNATIONAL CERTIFICATION 13:00-14:40 PRACTICAL PART 16:10-19:00 PRACTICAL PART
DAY 4 05 APRIL SATURDAY	ADVANCED LEVEL 08:20-11:00 Lectures 11:00-12:30 Hands-on course INTERNATIONAL CERTIFICATION 08:20-10:40 PRACTICAL PART 12:30-13:00 Closing Ceremony	

02 APRIL - WEDNESDAY - AFTERNOON

DAY 1 02 APR	PROGRAM
08:00-13:00	Registration
12:00-13:00	Executive Committee Meeting of ESNCH-WON
13:45-14:00	Welcome and Opening
BASIC LEVEL	
BASIC LEVEL - LECTURES	
Ultrasound principles and examination of extracranial arteries Moderators: B. Malojcic and J. Sargento Freitas	
14:00-14:20	L. Olah: Ultrasound physics and knobology
14:20-14:40	P. Martinez-Sanchez: Carotid artery examination protocol – carotid stenosis criteria
14:40-15:00	J. Sargento-Freitas: Vertebral artery examination protocol
15:00-15:20	Z. Garami: Standard of interpretation and reporting of ultrasound findings
15:20-15:40	Coffee
BASIC LEVEL - LECTURES	
Examination of intracranial vessels Moderators: A. Alexandrov and E. Bartels	
15:40-16:00	A. Alexandrov: Flow velocity parameters, waveform interpretation
16:00-16:20	Z. Garami: TCD – Basics and knobology – Detection of intracranial arteries
16:20-16:40	E. Bartels: TCCD – Basics and knobology
16:40-17:00	E. Stolz: TCCD – Examination of intracranial vessels
17:00-18:30	Hands-on course – Knobology, Carotid and vertebral artery examination, TCD, TCCD examination of intracranial vessels
18:30-19:30	General Assembly - ESNCH-WON
20:00-22:00	Opening ceremony

Hands-on course - 02 APRIL - AFTERNOON

02 April, Wednesday, Afternoon, 17:00-18:30 (Day 1/Afternoon)	Instructors
Extracranial duplex	P. Martinez-Sanchez
Extracranial duplex	R. Debreczeni
Extracranial duplex	L. Oláh
Extracranial duplex	Z. May
Extracranial duplex	A. Alexandrov,
Extracranial duplex	G. Panczel, I. Vastagh
TCD	Z. Garami
TCD	A. Lovrencic-Huzjan
TCD	P. Castro
Intracranial duplex/TCCD	E. Bartels
Intracranial duplex/TCCD	A. Pavlovic
Intracranial duplex/TCCD	B. Malojcic,
Intracranial duplex/TCCD	C. Baracchini
Intracranial duplex/TCCD	J. Sargento-Freitas
Intracranial duplex/TCCD	E. Stolz

(Back-up: C. Kulyk, D. Skoloudik, R. Licenik)

APRIL 03 - THURSDAY - MORNING

DAY 2 03 APR	PROGRAM
BASIC LEVEL - LECTURES	
Extra- and intracranial vascular pathologies Moderators: D. Skoloudik and C. Baracchini	
08:20-08:40	D. Skoloudik: Carotid artery wall pathologies - High risk atherosclerotic plaques
08:40-09:00	C. Baracchini: Extracranial arterial dissection
09:00-09:20	S. Horner: Subclavian steal syndrome
09:20-09:40	B. Malojcic: Vasculitis of extracranial vessels – Takayasu arteritis, Giant cell arteritis
09:40-10:00	Coffee
10:00-10:20	A. Lovrencic-Huzjan: Carotid web
10:20-10:40	P. Castro: Role of TCD in detection of asymptomatic high risk carotid plaques; Vasoreactivity and microembolus detection
10:40-11:00	E. Stolz: Normal TCD/TCCD data and criteria for intracranial arterial stenoses
11:00-12:30	Hands-on course – Extracranial duplex – carotid and vertebral arteries, Examination of intracranial arteries: TCD and TCCD, Cerebral vasoreactivity (BHI), Examination of superficial temporal artery
12:30-13:30	Lunch

Hands-on course – 03 APRIL - MORNING

03 April, Thursday, Morning, 11:00-12:30 (Day 2/ Morning)	Instructors
Extracranial duplex	J. Sargento-Freitas
Extracranial duplex	G. Panczel, Z. May
Extracranial duplex	A. Pavlovic
Extracranial duplex	C. Baracchini,
Extracranial duplex/Subclavian steal	S. Horner
Extracranial duplex/STA	B. Malojcic
TCD	A. Csányi, L. Olah,
TCD	A. Lovrencic-Huzjan
TCD/BHI, vasoreactivity	P. Castro
Intracranial duplex/TCCD	D. Skoloudik
Intracranial duplex/TCCD	S. Schreiber
Intracranial duplex/TCCD	E. Stolz
Intracranial duplex/TCCD	F. Schlachetzki, E. Bartels
Intracranial duplex/TCCD	C. Kulyk
Intracranial duplex/TCCD	R. Debreczeni, I. Vastagh

(Back-up: Z. Garami, R. Licenik, A. Alexandrov)

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3. Gracies J, et al. Lancet Neurol. 2015;14(10):992-1001. 4. Gracies J, et al. Muscle Nerve. 2018;57(2):245-54. 5. Gracies J, et al. Neurology. 2017;89(22):2245-53. 6. Turner-Stokes L, et al. J Rehabil Med. 2021;24:53:jrm00157. 7. Dysport® Summary of Product Characteristics. 8. Jitpimolmard S, et al. J Neurol Neurosurg Psychiatry 1998;64:751-57.

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A mellékhatásokat az Ipsen részére az alábbi elérhetőségeken jelentheti: mellekhatas.hungary@ipsen.com
A termékkel kapcsolatos szakmai kérdéseit a medical.info.hungary@ipsen.com email címen teheti fel.

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ADVANCED LEVEL

03 APRIL - THURSDAY - AFTERNOON

DAY 2 03 APR	PROGRAM
ADVANCED LEVEL - LECTURES	
Transcranial Brain Sonography WG Moderators: M. Mijajlovic and U. Walter	
13:30-13:50	M. Mijajlovic: Transcranial brain parenchyma scanning – protocol, techniques and practical
13:50-14:10	U. Walter: TCS in Parkinson's disease and Parkinsonian syndromes – established indications
14:10-14:30	S. Schreiber: TCS applications with real-time fusion imaging
14:30-14:50	D. Skoloudik: Use of software tools for quantitative TCS image analysis
14:50-15:10	Coffee
Microembolic signal detection WG Moderators: W. Mess and Z. Garami	
15:10-15:30	Z. Garami: PFO
15:30-16:00	W. Mess: Non-iatrogenous microembolus signal detection
16:00-17:30	Hands-on course – Extracranial duplex, TCCD of intracranial arteries, Transcranial brain sonography, TCD, Microembolus detection, PFO detection
17:30-19:30	INTERNATIONAL CERTIFICATION EXAM - THEORETICAL PART
17:30-18:00	Industry Meeting
20:30-01:00	Dinner & Dance

Hands-on course - 03 APRIL - AFTERNOON

03 April, Thursday, Afternoon 16:00-17:30 (Day 2/Afternoon)	Instructors
TCS	U. Walter
TCS	D. Skoloudik
TCS	R. Licenik
TCS	M. Mijajlovic
TCS	L. Zviagina
TCS/Fusion imaging	S. Schreiber
TCD/MES	W.Mess, E.Ho
TCD/MES	P. Castro
TCD/PFO	Z. Garami
Extracranial duplex	A. Csanyi
Extracranial duplex	B. Malojcic
Extracranial duplex	P. Lochner, L. Olah
Intracranial duplex/TCCD	E. Stolz
Intracranial duplex/TCCD	F. Schlachetzki
Intracranial duplex/TCCD	J. Sargento-Freitas

(Back-up: R. Debreczeni, G. Pánczél, I. Vastagh, Z. May, C. Baracchini, A. Lovrencic-Huzjan, C. Kulyk)

APRIL 04 - FRIDAY - MORNING

DAY 3 04 APR	PROGRAM
ADVANCED LEVEL - LECTURES	
Acute Stroke Ultrasound and Neuro-POCUS WG Role of TCD and TCCD in acute stroke; Point of Care Ultrasound in Neurology Moderators: C. Baracchini and R. Licenik	
08:20-08:40	C. Baracchini: Intracranial symptomatic stenosis: ultrasound-guided definition of grading, nature of stenosis and efficacy of treatment
08:40-09:00	A. Alexandrov: Suspicious signs of cardiac/systemic disease in transcranial ultrasound waves
09:00-09:20	J. Pagola: Focused Cardiac Ultrasound
09:20-09:40	R. Licenik: Medical Point of Care UltraSound in Neurology
09:40-10:00	D. Limbu: Ultrasound guided interventions (ultrasound guided lumbar puncture and ultrasound guided vascular access - Peripheral access and Central /Internal Jugular/ access)
10:00-10:20	Coffee
10:20-11:50	Hands-on course – TCD, Transcranial brain sonography, TCCD of intracranial arteries and veins, Functional TCD, Neuro-POCUS, Echocardiography, Ultrasound guided interventions
08:20-10:20	INTERNATIONAL CERTIFICATION EXAM - PRACTICAL PART
11:50-13:00	Lunch

Hands-on course - 04 APRIL - MORNING

04 April, Friday, Morning, 10:20-11:50 (Day 3/Morning)	Instructors
US-guided interventions/Administration of Botulinum toxin US-guided interventions/LP, Vascular access	A. Csanyi D. Limbu
TCS	M. Mijajlovic
TCS	U. Walter
TCS	D. Skoloudik
Functional TCD	B. Rosengarten
Functional TCD	P. Castro
TCD	A. Alexandrov
TCD	Z. Garami
Intracranial duplex/TCCD	C. Baracchini
Intracranial duplex/TCCD	F. Schlachetzki, C. Kulyk
Neuro-POCUS	P. Lochner
Neuro-POCUS	R. Licenik
Echocardiography	L. Schwindling
Echocardiography	J. Pagola

(Back-up: E. Stolz, L. Zviagina)

04 APRIL - FRIDAY - AFTERNOON

DAY 3 04 APR	PROGRAM
ADVANCED LEVEL - LECTURES	
NICU and Neuroorbital WG Ultrasound in Neurointensive Care Unit - TCD and orbital US Moderators: P. Lochner and B. Rosengarten	
13:00-13:20	P. Lochner: Neuroorbital ultrasound. Tips and tricks of examination of the Optic Nerve Sheath Diameter (ONSD)
13:20-13:40	B. Rosengarten: ONSD and nICP; Computing ultrasound based techniques to determine intracranial pressure
13:40-14:00	C. Kulyk: TCD in brain death
14:00-14:20	A. Lovrencic-Huzjan: TCD in vasospasm and thunderclap headache
14:20-14:40	Coffee
14:40-16:10	Hands-on course – TCD, ONSD, Examination of ophthalmic and central retinal arteries, Neuro-POCUS, Echocardiography, Ultrasound guided interventions, Transcranial brain sonography, Nerve ultrasonography
13:00-14:40 16:10-19:00	INTERNATIONAL CERTIFICATION EXAM - PRACTICAL PART
20:00-22:00	Boat trip on the Danube (Dinner)

Hands-on course - 04 APRIL - AFTERNOON

04 April, Friday, Afternoon, 14:40-16:10 (Day 3/ Afternoon)	Instructors
Orbit US, ONSD/Central retinal a.	P. Lochner
Orbit US, ONSD, Central retinal a.	L. Zviagina
Orbit US, ONSD, Central retinal a.	E. Stolz, Z. May, G. Panczel
Echocardiography	L. Schwindling
Echocardiography	R. Licenik
Neuro-POCUS and Ultrasound guided interventions	D. Limbu
TCD	C. Kulyk
TCD	A. Lovrencic-Huzjan
TCD	Z. Garami, B. Rosengarten
US-guided interventions/Administration of Botulinum toxin	A. Csanyi
Muscle and nerve	Z. Aranyi
Muscle and nerve	A. Csillik
Muscle and nerve	K. Saftics
TCS	U. Walter
TCS	M. Mijajlovic

(Back-up: L. Olah, R. Debreczeni, B. Malojcic, D. Skoloudik, C. Baracchini, P. Castro)

05 APRIL - SATURDAY - MORNING

DAY 4 05 APR	PROGRAM
ADVANCED LEVEL - LECTURES	
Miscellaneous topics Moderators: N. Bornstein and U. Walter	
08:20-08:40	Zs. Aranyi: Muscle and nerve sonography
08:40-09:00	G. Tsigoulis: The clinical utility of MES detection in acute ischemic stroke
09:00-09:20	L. Csiba: Detection of hyperperfusion syndrome after carotid reconstruction
09:20-09:40	A. Gaál, R. Debreczeni: Evaluation of cerebral collateral circulation – role of TCD and TCCD
09:40-10:00	C. Baracchini: Sickle cell disease
10:00-10:20	U. Walter: Role of TCS in detection and follow-up of intracranial hemorrhage
10:20-10:40	Coffee
11:00-12:30	Hands-on course – Orbit ultrasound, Transcranial brain sonography, Muscle and nerve sonography, TCD, Examination of cerebral collateral circulation, TCCD of intracranial arteries and veins, Examination of superficial temporal artery
08:20-10:40	INTERNATIONAL CERTIFICATION EXAM - PRACTICAL PART
12:30-13:00	Closing Ceremony and Announcement of the WON/ESNCH Conference 2026
13:00-14:00	Lunch

We reserve the right to make changes in the program.

Hands-on course - 05 APRIL - MORNING

05 April, Saturday, Morning, 11:00-12:30 (Day 4/ Morning)	Instructors
Orbit US	P. Lochner, G. Panczel
Orbit US	L. Zviagina
Orbit US	E. Stolz, Z. May
TCS	U. Walter
TCS	M. Mijajlovic
Neuro-POCUS TCS/TCCD	R. Licenik
TCD	P. Castro
TCD	Z. Garami
TCD	R. Debreczeni, A. Gaal, L. Olah
Extracranial duplex/STA	B. Malojcic
Muscle and nerve	Z. Aranyi
Muscle and nerve	A. Csillik
Muscle and nerve	K. Saftics,
Intracranial duplex/TCCD	D. Skoloudik
Intracranial duplex/TCCD	C. Kulyk,

(Back-up: I. Vastagh)

02-05
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