

FOUR-HOUR LIVE WEBINAR

Tuition: \$69

(REGISTRATION FORM)

TIMING IS EVERYTHING: USING CIRCADIAN RHYTHMS TO IMPROVE PATIENT CARE

Please Check One Option Below:

LIVE WEBINAR:

___ Thu., June 23, 2022, 12:00 PM – 4:30 PM, (Eastern Time)
or 9:00 AM – 1:30 PM, (Pacific Time)

___ Sun., July 17, 2022, 12:00 PM – 4:30 PM, (Eastern Time)
or 9:00 AM – 1:30 PM, (Pacific Time)

___ Sun., Aug. 14, 2022, 12:00 PM – 4:30 PM, (Eastern Time)
or 9:00 AM – 1:30 PM, (Pacific Time)

___ \$69 – Pre-Registration Rate: Live Webinar with 4 hours of CE credit.

Registrants will need a computer with a good Internet connection and audio speakers (or headphones) to participate in the live Webinar.

Please note special discounts for homestudy purchase are available for students who are registered for webinars. Please email INR at info@biocorp.com for more information.

Name (please print) _____

Home Address _____

City/State _____ Zip _____

Work Phone _____ Home Phone _____

Fax _____

Email _____

Profession _____ License No. _____

Pharmacists only: NABP # _____ Date of Birth mm / dd / yy

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There are four ways to register:

- 1) **Internet:** www.INRseminars.com
- 2) **Mail:** INR, P.O. Box 5757, Concord, CA 94524-0757
(Make check payable to INR.)
- 3) **Fax:** (925) 687-0860
- 4) **Phone:** 1-800-937-6878

Inquiries for Customer Service: 1-877-246-6336 or (925) 609-2820

Purchase orders are accepted. Tax Identification No. 94-2948967

ACCREDITATION

To obtain the 4 contact hours associated with this course, the health care professional will need to sign in, attend the course, and complete program evaluation forms. At the end of the program, the health care professional successfully completing the course will receive a statement of credit. This is an intermediate-level course.

NURSES (RNs, NPs, & LPNs)

Institute for Natural Resources (INR) is accredited as a provider of nursing continuing professional development by the American Nurses Credentialing Center's Commission on Accreditation.

This program provides 4 contact hours for nurses, including 4 Rx contact hours of pharmacology CE. INR has been accredited as a continuing education provider by the Florida Board of Nursing (#50-3026-1) and the Iowa Board of Nursing (#288) for 4 contact hours, and the California Board of Registered Nursing (CEP #06136) and the Kansas Board of Nursing (#LT0140-0927) for 4.6 contact hours.

DENTAL PROFESSIONALS

INR is an ADA CERP Recognized Provider. ADA CERP is a service of the American Dental Association to assist dental professionals in identifying quality providers of continuing dental education. ADA CERP does not approve or endorse individual courses or instructors, nor does it imply acceptance of credit hours by boards of dentistry. INR designates this activity for 4 hours of continuing education credits.

PHARMACISTS

Institute for Natural Resources is accredited by the Accreditation Council for Pharmacy Education (ACPE) as a provider of continuing pharmacy education. The ACPE universal activity number (UAN) for this course is 0751-0000-22-027-L01-P. This is a knowledge-based CPE activity.



REGISTERED DIETITIANS & DTRS

INR, under Provider Number IN001, is a Continuing Professional Education (CPE) Accredited Provider with the Commission on Dietetic Registration (CDR). Registered dietitians (RDs) and dietetic technicians, registered (DTRs) will receive 4 hours worth of continuing professional education units (CPEUs) for completion of this program/materials. Continuing Professional Education Provider Accreditation does not constitute endorsement by CDR of a provider, program, or materials. CDR is the credentialing agency for the Academy of Nutrition and Dietetics. This course has Activity Number 169265 and Performance Indicators: 10.2.1, 10.2.2, and 10.2.3. CPE Level: I.



PSYCHOLOGISTS

Under CE Broker # 50-3026, INR is an approved provider by the Florida Board of Psychology. The Institute for Natural Resources (INR) is approved by the CPA OPD to sponsor continuing professional education for psychologists. INR maintains responsibility for this program and its content. Psychologists must attend the seminar in its entirety and complete the course evaluation in order to receive credit. Under License #PSY000214, the Pennsylvania Board of Psychology has approved INR as a sponsor/provider of CE programs. Under Sponsor #268.000096, the Illinois Dept of Prof Regulation for Psychologist Licensing and Disciplinary Board has approved INR as a CE sponsor. Institute for Natural Resources (INR) is recognized by the NY SED State Board for Psychology as an approved provider of continuing education for licensed psychologists #PSY-0042.

MENTAL HEALTH COUNSELORS & ADDICTION COUNSELORS

Under Sponsor #00088989 and Approval #60007956061, CRCC has approved this course for four contact hours. Institute for Natural Resources (INR) is recognized by the NY SED State Board for Mental Health Practitioners as an approved provider of continuing education for licensed mental health counselors, #MHC-0089. Under Sponsor #197-000240, the Illinois Dept of Prof Regulation has approved INR as a CE sponsor for professional/clinical counselors. INR is approved by the NAADAC Approved Education Provider Program, Provider #182846.

SOCIAL WORKERS & MARRIAGE & FAMILY THERAPISTS

Institute for Natural Resources, #1356, is approved to offer social work continuing education by the Association of Social Work Boards (ASWB) Approved Continuing Education (ACE) program. Organizations, not individual courses, are approved as ACE providers. State and provincial regulatory boards have the final authority to determine whether an individual course may be accepted for continuing education credit. Institute for Natural Resources maintains responsibility for this course. ACE provider approval period: 02/28/2022–02/28/2025. Social workers completing this course receive 4 clinical continuing education credits. Institute for Natural Resources (INR), SW CPE is recognized by the NY SED State Board for Social Work as an approved provider of continuing education for licensed social workers #0195. The California Board of Behavioral Sciences will accept courses approved by ASWB. Under Sponsor #159-000260, the Illinois Dept of Prof Regulation has approved INR as a sponsor of continuing social work education. Institute for Natural Resources (INR) is recognized by the NY SED State Board for Mental Health Practitioners as an approved provider of continuing education for licensed marriage and family therapists. #MFT-0055. Under Sponsor #168.000243, the Illinois Dept of Prof Regulation has approved INR as a CE sponsor for marriage and family therapists. Under CE approval #NVCEP2021, the Nevada Board of Examiners for MFT and CPC has approved INR as a sponsor.

OCCUPATIONAL THERAPISTS & OTAs

INR is an AOTA Approved Provider of continuing education. Provider #5347. INR has assigned 0.4 AOTA CEUs for this course. The category of this course is Foundational Knowledge. The assignment of AOTA CEUs does not imply endorsement of specific course content, products, or clinical procedures by AOTA.

PHYSICAL THERAPISTS & PTAs

The Florida Physical Therapy Association has approved this course for 4 contact hours (Approval #CE 22-909107). Accreditation of this course does not necessarily imply the FPTA supports the views of the presenter or the sponsors. INR is recognized as an approval agency to approve providers offering continuing competency courses by the Physical Therapy Board of California. This course has been approved by the Institute for Natural Resources (INR) for 4 continuing competency units. Under Sponsor #216-000264, the Illinois Dept of Prof Regulation has approved INR as a sponsor for continuing physical therapy education.

CASE MANAGERS

This program has been pre-approved by The Commission for Case Manager Certification to provide continuing education credit to Certified Case Managers (CCMs).

OTHER HEALTH PROFESSIONALS

Participants successfully completing this course will receive course completion certificates. For rules governing continuing education credit, participants should contact their respective regulatory boards.

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(A NEW 4-HOUR INTERACTIVE LIVE WEBINAR)

SCHEDULE

Please see the Registration Form for the seminar schedule.

Please register early. Space is limited. Registrations are subject to cancellation after the scheduled start time. A transfer can be made from one Webinar to another if space is available. Registrants cancelling up to 72 hours before a Webinar will receive a tuition refund less a \$25.00 administrative fee or, if requested, a full-value voucher, good for one year, for a future Webinar. Cancellation or voucher requests must be made in writing. If a Webinar cannot be held for reasons beyond the control of the sponsor (e.g., acts of God), the registrant will receive free admission to a rescheduled Webinar or a full-value voucher, good for one year, for a future Webinar. A \$25.00 service charge applies to each returned check. Nonpayment of full tuition may, at the sponsor's option, result in cancellation of CE credits issued. The syllabus is not available for separate purchase. A \$15.00 fee will be charged for the issuance of a duplicate certificate. Fees subject to change without notice.

SPONSOR

INR (Institute for Natural Resources) is a non-profit scientific organization dedicated to research and education in the fields of science and medicine. INR is the nation's largest provider of live continuing education programs, offering over 600 live programs yearly.

INR has no ties to any commercial organizations and sells no products of any kind, except educational materials. Neither INR nor any instructor has a material or other financial relationship with any health care-related business that may be mentioned in an educational program. If INR were ever to use an instructor who had a material or other financial relationship with an entity mentioned in an educational program, that relationship would be disclosed at the beginning of the program. INR takes all steps to ensure that all relevant program decisions are made free of the control of a commercial interest as defined in applicable regulatory policies, standards, and guidelines. INR does not solicit or receive gifts or grants from any source, has no connection with any religious or political entities, and is totally supported by its course tuition.

INR's address and other contact information follows:

P.O. Box 5757, Concord, CA 94524-0757

Customer service: 1-877-246-6336 or (925) 609-2820

Fax: (925) 687-0860

E-Mail: info@inrseminars.com; website, www.INRseminars.com

Tax Identification Number 94-2948967.

Education expenses (including enrollment fees, books, tapes, travel costs) may be deductible if they improve or maintain professional skills. Treas. Reg. Sec. 1.162-5. Recording of the seminar, or any portion, by any means is strictly prohibited. INR's liability to any registrant for any reason shall not exceed the amount of tuition paid by such registrant.

For American Disability Act (ADA) accommodations or for addressing a grievance, please send the request by email to info@inrseminars.com or by fax to (925) 363-7798. For ADA matters (including sign-language interpreters), INR would appreciate advance notice so as to ensure our ability to provide the appropriate accommodation.

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Frequently Asked Questions

Q: What do I have to do to complete the live Webinar successfully?

To obtain the 6 contact hours associated with this course, the health professional will need to sign-in (by typing in the chat-box), attend the course online, and complete the program evaluation form and post-test electronically. At the end of the program, after all the evaluation and post-tests are accounted for, the health professional successfully completing the program will receive a statement of credit. This will take approximately 3 to 5 business days. This is an intermediate-level course.

Q: How will I know that my profession qualifies for continuing education credit? Please see the section marked Accreditation. All professions for which INR (Institute for Natural Resources) has approval are listed in the Accreditation section.

Q: What happens if I have technical difficulties watching or hearing a Webinar? You can transfer the tuition paid to another Webinar within two years or request a recording within 3 to 5 days to complete the webinar ASAP for live credit.

Q: My profession is not listed on the brochure. Is it possible to obtain continuing-education credit? Possibly. Please contact INR's customer-service office at 1-877 246-6336 or by email at info@biocorp.com. The customer-service office can tell you if INR has approval for your profession.

COURSE SUMMARY

The daily cycle of light and darkness has been recognized as a factor in health and well-being for millennia. Our circadian rhythms, linked to cycles of light and darkness, play an important role in many physiologic processes. These diurnal cycles can also influence our response to disease, stress, medications, invasive procedures, and surgery.

This webinar is designed to help health care teams improve medication selection and timing especially for their patients with cardiopulmonary problems, diabetes, cancer, and chronic pain. The vital importance of sleep-wake cycles on anxiety, depression, stress, memory, and addiction is also reviewed.

Finally, the increasingly pervasive and complex problem of polypharmacy will be addressed. A growing list of OTC (over-the-counter) and prescription medications, along with commonly used substances such as caffeine and alcohol, frequently complicate patient care. A greater understanding of the physiologic and pharmacologic principles linked to circadian rhythms will help health professionals in every field achieve better results with patient care.

Disclaimer: These live interactive INR presentations provide continuing education for health care and mental health professionals with the understanding that each participant is responsible to utilize the information gained in an appropriate manner congruent with his/her/their scope of licenses.

PROGRAM/LECTURE

PART 1: Physiology - 90 Minutes

- **Defining Circadian Rhythms:** Understanding the Sleep-Wake Cycle.
- **Let There Be Light:** How Changing Light Levels Affect Physiology. The Hypothalamus and Suprachiasmatic Nucleus. The Pineal Gland and Melatonin.
- **Diurnal Cycles & the Neuro-endocrine System:** Neurotransmitter Synthesis. Human Growth Hormone Production. Fluctuations in Testosterone. Thyroid Levels.
- **Avoiding Brain Drain:** How Sleep-Wake Cycles Impact Learning, Memory, Accuracy, and Concentration.
- **Circadian Rhythms and Cardio-Pulmonary Function:** Variations in Heart Rate, Blood Pressure and Exercise Capacity. The Best Time to Extubate a Patient (Early to Mid-Morning.)

BREAK: 15 Minutes

PART 2: Pharmacology - 90 Minutes

- **The Serious Side of Sleep Deprivation:** Immune Compromise. Inflammation and Increased Pain.
- **More Than a Feeling:** How Sleep Deprivation Contributes to Anxiety, Depression, and Addiction. Declines in Serotonin, Norepinephrine, and Dopamine.
- **Chronotherapy:** Defining the Concept. Putting Principles into Clinical Practice. Letting Sick Patients Sleep.
- **Drugs that Compromise the Sleep-Wake Cycle:** Alcohol, Caffeine, SSRIs, SNRIs, Benzodiazepines, Steroids, Sedatives, Opioids, Beta-blockers, Amphetamines. Drug Withdrawal and Illicit Drugs.
- **Chronobiology and Cancer Therapy:** Anti-Metabolic Chemotherapy. Radiation Therapy. The Effects of Stress, Worry, and Anxiety.
- **Chronotherapy in Cardiac Patients:** The Proper Timing of Diuretics, Anti-Hypertensives, and Statin Drugs.
- **Improving the Care of Diabetic Patients:** How Sleep-Wake Cycles Influence Glucose Levels and Weight Management. Metabolic Syndrome.

BREAK: 15 Minutes

PART 3: Microbiome and Medical procedures - 60 Minutes

- **Chronobiology & the Gastrointestinal (GI) Tract:** Impact on the Microbiome. H2 Blockers and Laxatives.
- **Morning Rounds:** Growth Hormone Levels and the HPA Axis. Why the Timing of a Procedure Matters. Surgery. Dental Procedures. Invasive Testing. Complex Physical Therapy and Occupational Therapy Procedures in Stroke or Trauma Patients.

LEARNING OBJECTIVES

Participants completing this course will be able to:

- 1) describe the clinical significance of circadian rhythms and the sleep-wake cycle.
- 2) outline the key effects of the sleep-wake cycle on heart rate, blood pressure, glucose levels, and the HPA axis.
- 3) discuss the most serious effects of sleep deprivation on immune function, depression, inflammation, and pain perception.
- 4) list the major drug categories that can compromise normal sleep and circadian rhythms.
- 5) discuss the importance of proper medication timing and procedure scheduling for cardiac and cancer patients and patients with diabetes.
- 6) describe, based on the materials presented in this course, the implications for health professionals in nursing, pharmacy, dentistry, mental health fields, nutrition, occupational and physical therapy.

INSTRUCTOR

Dr. Eric Bornstein (Chief Medical Officer, DMD) is the former Chief Medical Officer of Nomir Medical Technologies, and is a biochemist, dentist, and photo-biologist. He has successfully taken three medical device through to FDA 510k approval. Dr. Bornstein has managed five human clinical trials and has patented multiple medical technologies in the areas of lasers, photo-biology, circadian rhythm, adipose tissue modification, and biofilm eradication. Dr. Bornstein is widely published in peer-reviewed journals such as "Current Trends in Microbiology" and "Compendium." For the past five years, he has delivered continuing education seminars and webinars to over 100,000 health care professionals. His lectures encompass the subjects of pharmacology, marijuana, vaping, opioids, hallucinogens, drug abuse, periodontal disease and medical devices. Dr. Bornstein has lectured all over the United States, Canada, Mexico, the UK, Germany, and Israel.

INR reserves the right to change instructors without prior notice. Every instructor is either a compensated employee or independent contractor of INR.