

# Light Treatment and Biological Rhythms

*Bulletin of the Society for Light Treatment and Biological Rhythms*



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## ANNUAL MEETING PLANS AND PRE-REGISTRATION

Included in this issue of *LTBR* are the registration and abstract submission forms for our annual meeting scheduled for 13-14 June at the Clarke Institute of Psychiatry, University of Toronto. Under the University's co-sponsorship, meeting attendance offering American Medical Association Physician's Recognition Award Category 1 Credit Hours is pending.

The conference schedule includes scientific presentations and poster sessions on both days, as well as an afternoon course on 14 June entitled *Bright Light Treatment of Winter Depression and Other Chronobiologic Disorders* conducted by a group of international experts and pioneer researchers. Corporate exhibits will be an integral part of the meeting. In addition, we have planned a Friday evening banquet at a restaurant in Toronto's Chinatown.

We invite members active in research to participate in the meeting presentations. Please complete the abstract submission form and submit it before 15 April 1991. The Program Committee will review abstracts and respond with session assignments about 6 May. Our generously late submission date is intended to encourage SAD researchers to report on this winter's data.

Please note the registration deadline of 15 April for those submitting abstracts and 15 May for other participants. Current 1991 members are eligible for the \$75 registration fee. Others may take advantage of this fee with new or renewed membership. Reservations for the Friday banquet can be made on the registration form and payment included with the meeting fee.

We have arranged for discounted lodging at the Carlton Inn Hotel, 30 Carlton Street, near the

University of Toronto. Room rates at Can \$59/single or \$69/double-twin will be available until 15 May. You may use the registration card included in this bulletin or make phone reservations as indicated on the meeting registration form.

Our meeting is an official satellite symposium of the annual meeting of the Association for Professional Sleep Societies (APSS) which will be held at the Westin Harbour Castle on Toronto's waterfront. Participants attending both our meeting and the APSS conference may wish to stay at the Carlton since rates are more affordable and subway access to the APSS meeting is convenient.

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## Light Treatment and Biological Rhythms

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## QUO VADIS S-SAD?

### *Comment on Draft Report of the SLTBR Scientific and Clinical Advisory Work Group*

The recent report by the SLTBR's Scientific and Clinical Advisory Work Group [*LTBR* (1990) 3: 5] did not include a discussion of or reference list for subsyndromal SAD (S-SAD). It would seem advisable to draw attention to its existence since epidemiological studies (Terman, 1988; Kasper et al., 1989b; Rosen et al., 1990; Magnússon and Stefansson, pers. comm.) indicate that S-SAD occurs at least three times more frequently than the fully developed syndrome of SAD and since light therapy has been shown to be effective in both situations.

### Clinical Description

In recruiting participants for SAD studies, the NIMH group frequently faced the problem that patients complain of symptoms that resemble but are less intense than those of SAD (Rosenthal et al., 1987b). A similar observation was made by Terman et al. (1989), who noticed that some of their patients fulfilled the Research Diagnostic Criteria for minor

depression and might therefore not be called SAD patients by the criteria of Rosenthal et al. (1984). This experience led to the first systematic description of a group of individuals who neither met criteria for major affective disorder, nor had sought treatment for their winter difficulties, but who nevertheless experienced mild dysfunction and vegetative changes similar to those found in SAD (Kasper et al., 1989a). In an effort to use a standardized approach for S-SAD, we established the following inclusion criteria:

- 1) Subjects have a history of some difficulty during the winter months that had occurred on a regular basis (at least two consecutive winters) and had lasted for a sustained period of time (at least 4 weeks). Examples of these difficulties are decreased energy, decreased efficiency at work (e.g., concentration, completing tasks), decreased creativity or interest in socializing, change in eating habits (e.g., eating more carbohydrates), weight (gaining weight) or sleep patterns (more sleep).
- 2) Subjects regard themselves as "normal", i.e., not suffering from an illness or disorder.
- 3) Subjects have not sought medical or psychological help specifically for their difficulties, nor has anyone else suggested that they do so.
- 4) People who do not know the subjects well do not recognize that they have a problem, or if they do, easily attribute it to circumstances such as "flu or overwork".
- 5) The symptoms experienced by the subjects have not disrupted their functioning to a major degree, e.g., calling in sick several times per winter, or severe marital discord.
- 6) Subjects have no history of major affective disorder in wintertime.
- 7) Subjects have no serious medical illness.

We found that the seasonality score obtained by means of the Seasonal Pattern Assessment Questionnaire (Rosenthal et al., 1987a) was  $11.1 \pm 2.1$  (mean  $\pm$  SD) in S-SAD individuals compared to a value of  $15.9 \pm 3.3$  in SAD patients. Furthermore, it emerged that S-SAD individuals were not bothered as much by depressed mood as patients with SAD, and their symptoms consisted predominantly of the so-called "atypical" depressive symptoms, as measured with the supplementary items of the Hamilton Depression Rating Scale.

### Response to Light Therapy

Since light therapy has been proven to be beneficial in SAD patients, we explored whether this effect is also present in S-SAD. In a parallel design, we studied two populations of normal individuals: one group with a history of mild SAD-type symptoms (S-

SAD) and one group without these symptoms (non-S-SAD) (Kasper et al., 1989a). The treatment results suggest that bright light is beneficial only in subjects who report a history of symptomatic seasonal changes. Furthermore, it appeared that the effect of light depends on the duration of light exposure insofar as a 5-hr treatment regimen (for one week) showed a greater response than a 2-hr regimen. A favorable response of S-SAD to bright light treatment has also been found in a follow-up study (Kasper et al., 1990b).

### Epidemiology

The prevalence rate for S-SAD can be estimated to be 13.5% for the general population of Montgomery County, MD (Kasper et al., 1989b). Since the prevalence rate for SAD was estimated in this study to be 4.3%, it can be assumed that there is a substantial proportion of the general population that would benefit from enhanced ambient light. Similar numbers have been found by Terman (1988) in New York, and the data of a multicenter study (Rosen et al., 1990) indicate that higher numbers of SAD and its subsyndromal form are found in more northern regions of the U.S. east coast.

### Implications for Clinicians and Public Health Officials

Given the high prevalence estimates in the general population, the potentially disabling effects of the symptoms and their reversibility by manipulation of environmental light, it is conceivable that winter SAD and its subsyndromal form would be of considerable interest to those concerned with public health. We therefore attempted to determine what fraction of the general population might benefit from enhanced environmental light and whether we can predict who these individuals are on the basis of retrospective reports of winter difficulties. We conducted a light therapy study in a group of individuals selected from a random sample of the general population of Montgomery County, MD (Kasper et al., 1990b). A goal was to estimate the response to light therapy in the general population so that physicians and public health practitioners could evolve recommendations for light therapy. The results of this study suggest that enhancement of ambient light is beneficial only for patients with SAD and its subsyndromal form. Individuals with no history of winter difficulties or current depressive symptoms do not seem to profit from light treatment. It thus seems reasonable for physicians and public health practitioners to base

recommendations for light therapy on the presence of a history of winter difficulties. If the findings of our study are confirmed by other investigators, they will have implications for health planning and policy (see also Terman and Terman, 1991). On the one hand, a subtype of the general population with a history of winter difficulties might be identified and offered enhanced lighting. On the other hand, caution is needed when plans are considered to enhance lighting in public facilities because we could not demonstrate that such a manipulation is beneficial for everybody.

### Conclusions

Based on data obtained in epidemiological studies and on our recent experience in a SAD clinic in Germany (Kasper et al., 1990a), it has become clear that patients with S-SAD can be frequently observed in the general population as well as in research settings. Since the behavioral and mood changes in subjects with S-SAD fall between those of healthy controls and patients with SAD, it would be worthwhile to investigate whether their biological profiles also occupy such an intermediate position, and whether they are genetically related to individuals with more severe affective symptoms. Furthermore, data of prospective studies are needed to elucidate the course of S-SAD. Such longitudinal studies would support the assumption that seasonality can be viewed as a "dimension" if they document, for instance, that vulnerable individuals develop SAD-like symptoms when they are placed in a light deficient environment regardless of the time of year.

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## SAFETY OF LIGHT THERAPY DEVICES

### *Comment on Draft Report of the SLTBR Scientific and Clinical Advisory Work Group*

As an ophthalmologist and retinal cell biologist I thoroughly appreciate the effort to set standards that are presumably safe for the eye, and to define exposure conditions and light sources as clearly as possible. I would like, however, to raise some additional issues that may be relevant for developing SLTBR's recommendations to the clinical community.

In paragraph 1b [LTBR (1990) 3: 7-9], the "blue light" (380-480 nm) emitted by fluorescent lamps is said not to exceed threshold limit values that damage the retinal pigment epithelium (Sliney and Wolbarsht, 1980). From what source are these values derived — human or animal experiments? Some of the known threshold limit values certainly stem from animal experiments [e.g., American Conference of Governmental Industrial Hygienists (1987), p. 90]. Similarly, other safety limit values are derived from studies with lasers [e.g., American National Standards Institute (1986)].

This raises the basic issue of inferring from animal studies to humans, and from one light source to another. The SLTBR draft report does not clarify

these issues. On the one hand, it cites safety standards that may have been derived from animal experiments. On the other hand, it states that human data do not exist, for example, on damage thresholds to photoreceptors exposed to diffuse fluorescent light (paragraph 1d). If inference from one experimental system to another is permitted, one ought to take seriously the abundant literature on damage by diffuse, white light to mammalian photoreceptors. If such an inference appears incorrect, then safety standards specific for light therapy should be elaborated. As Sliney (1983) states, "Clearly, the problem for standards writers is not a simple one because of the variety of ways in which the standards can be applied. Relative hazards of different lamps can be made only for comparison. . . ." Berninger et al. (1989) state that "the determination of safety limits depends on the sensitivity of the tests applied." In their study, for example, the damaging light intensity was well below accepted safety levels (p. 1458).

A further concern relates to long-term changes and additivity, respectively. In an extensive study, Terman et al. (1990) have clearly demonstrated that no short-term lesions to the eye arise during 10,000 lux light therapy. We should be aware, however, that we simply do not know whether ocular alterations — or even lesions — occur after long-term exposure (in the decades range) to diffuse, white light, be it from artificial sources or sunlight and skylight. It is exactly this question that raises intense debate within the ophthalmological community, and necessitates epidemiological documentation and direct research (see Miller, 1987; Terman et al., 1990, pp. 782ff).

These considerations should by no means be construed to question the beneficial use of light therapy, but it is a matter of clarity to state that long-term effects cannot be excluded as a possibility at this time. A natural experiment showing long-term light effects in humans is the study of Berninger et al. (1989), in which reduced color contrast sensitivity was demonstrated in ophthalmologists who had treated patients with argon laser over periods of 2 to 15 years.

Should all patients receiving light therapy undergo minimal ophthalmological screening? The SLTBR draft report lists some important factors that do (or might) increase the risk of ocular side effects, and it suggests exclusion of patients bearing such risks unless light therapy is an absolute indication. If

ophthalmological screening is not performed, who decides whether a given patient can receive light treatment? Who is responsible if complaints arise? Who can assure a patient that a given ocular problem is not causally related to the lights?

As the number of patients receiving light therapy increases, the number of coincidental acute or chronic ocular symptoms will also increase — for example, the awareness of vitreous floaters. Who will attend to this? For these and other reasons, a simple, minimal ophthalmological screening appears necessary [see *LTBR* (1990) 2(5): 6-8]. In addition, each clinical center or individual practitioner should engage an ophthalmological consultant to provide appropriate advice about ocular problems as they arise.

In summary, regardless of the impressive success of light treatment as an antidepressant manipulation, we ought to bear in mind that long-term additive effects on the eye cannot be entirely excluded at this time. The putative safety of bright fluorescent lights has been inferred from a variety of situations that may not strictly replicate the conditions of light treatment. For example, a frequently heard argument is that outdoor daylight is much brighter than that employed for light therapy. However, the entirely different exposure geometry and the opportunity for human aversion behavior (including dynamic head movement with respect to the illuminant source, and the use of sunglasses) render this comparison rather tenuous. The SLTBR Work Group Report should present a clarified line of argument and develop a set of safety standards that acknowledges the unknowns.

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## TO THE EDITOR

### *On Placebo Effects, SAD Assessment, and Withdrawal to Relapse*

Domien Beersma's review of the SLTBR consensus-building forum at the May annual meeting [*LTBR* (1990) 3: 1] raises several issues of importance in interpreting the clinical effects of light therapy for SAD.

For one, he asserts that the placebo issue is of primary "scientific" — rather than "clinical" — importance, because the clinician's interest is to ameliorate symptoms regardless of mechanism of action of the intervention. I find the placebo issue very clinically relevant. In a typical drug study, one third of subjects get better on placebo, two thirds on drug. This strongly suggests that only half the subjects who got better while taking drug improved *because* of it, while the other half improved for nonspecific reasons. Thus, given a response, there is an equal likelihood of continuing an unnecessary or necessary medication. Particularly in the case of a regularly recurrent disorder such as SAD, both patient and doctor would like to know whether any improvement experienced can best be attributed to the specifics of the treatment vs. nonspecific factors, in order to know what to do next time around.

Beersma is correct in faulting the week-long SIGH-SAD evaluation for its insensitivity to transitory effects. By integrating symptom assessment over a full week at the initiation of light treatment, the rater is going to miss or blunt the report of emergence of some of the clinical improvement. However, the SIGH-SAD does not need to be used to measure the entire week; for example, it can be used to assess the past three days (or any other period), albeit at the risk of reducing rating reliability in comparison to a hypothetical homogenous week. Because patients most often do not begin to improve for several days into a light therapy trial, two-week trials are preferable for ascertaining improvement across the standard one-week assessment window, eliminating the problem of reliance on only a few days' data.

Beersma's alternative — multiple daily assessments on an adjective mood scale — will surely serve to yield more information about exactly when improvement occurred, as well as its variation over time. Sole reliance on such a self-report measure, however, is problematic.

Beersma asserts that lack of relapse following withdrawal from lights indicates greater clinical success than observation of relapse. Relapse can be an excellent way to judge specificity: it all depends on why a purported successful treatment is working. If a treatment is compensatory — as with insulin for diabetes — we expect the patient to relapse when an effective treatment is withdrawn. If, on the other hand, the treatment is curative — as with penicillin for pneumococcal pneumonia — we anticipate no relapse following an adequate course of treatment. Finally, the disease may remit for reasons independent of the treatment. Thus, if we give Vitamin C for seven days for a cold, we do not expect the cold to recur when we stop it: presumably the illness has run its course whether or not the Vitamin C was helpful. As these examples show, failure to relapse is not as informative as is relapse.

For the palliative, compensatory treatments we seem to have at present in psychiatry, relapse is suggestive that the treatment was effective, while failure to relapse most likely indicates that the disorder ran its course. Thus relapse seems more informative of specific treatment efficacy than lack of relapse.

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## SAD IN BRITAIN

### *The Role of the SAD Association*

The SAD Association (SADA) had its beginnings in October 1987 at a social gathering held by Dr. Christopher Thompson for people involved in his SAD clinic at Charing Cross Hospital, London, UK. Some of us who had been diagnosed and treated there felt the need to publicize, for the benefit of others, SAD and its successful treatment with light therapy.

Voluntary consumer organizations play a considerable

role in British society, especially those which advise on health, emotional and legal issues. There seems to be increasing unwillingness to accept professional advice without recourse to an independent lay organization which can offer support and counsel from its own experience. As one irreverent medical student commented, "If someone's budgie [pet bird] dies, they set up a support group . . . ."

SADA's aims are to identify, support and advise SAD sufferers and to educate the public, in particular health officials, about SAD. The need for this service has been overwhelmingly proved by the 35,000 letters and inquiries received over the past three years from people who have or think they may have SAD, press and media, health organizations and practitioners and many others from Britain and overseas. These inquirers receive a free information packet giving details of SAD, treatments, clinics, books, contacts and sources of light fittings. They have the option to join SADA for an annual membership fee of £10 for which they receive a quarterly newsletter, a list of fellow sufferers to contact and details of meetings.

SADA is a registered charity supported by its members, donations and a small starter grant from the Mental Health Foundation. It has no paid staff as yet. Members are encouraged to participate in SADA's work of publicizing SAD and many have broadcast on TV and radio and have been featured in local and national newspapers. A telephone helpline service is offered by a team of 15 experienced SAD sufferers throughout the country.

Although a small number of doctors and psychiatrists has shown interest in inquiring about help for individual patients, knowledge of SAD and its treatment is lacking among most medical practitioners. The two stalwart bookends of British SAD, Drs. Christopher Thompson and Stuart Checkley, continue to offer a free consultation, diagnosis and light therapy trial at their research clinics at the Royal South Hamps and Maudsley Hospitals, respectively. SADA advises people to show its literature to their doctors and undertake treatment under their guidance, and to seek a second opinion or change doctors if necessary. Unfortunately, many SAD sufferers have abandoned orthodox medical treatment after years of misdiagnosis and advice such as "it's all in the mind . . . you have to learn to live with it . . . eat more carrots in winter." They find do-it-yourself treatment with light therapy more acceptable.

We continue to look to the United States and other centers for news of developments in research and treatment of SAD. SADA originally pointed patients toward use of the original standard light box configuration (full-spectrum 2500 lux at 3 feet), but in view of more recent results using other light sources and higher intensities [see, e.g., Wirz-Justice's review in *LTBR* (1989) 1(2): 1-4] we are keeping our members apprised of the rapidly developing technology. Thus far, cost of apparatus has not been reimbursed by the National Health Service. The publication in England of three books on SAD will undoubtedly help our cause: Thompson and Silverstone's *Seasonal Affective Disorder* [see *LTBR* review (1990) 2(4): 8-10], *SAD: Winter Depression* by Angela Smyth, recently published by Unwin Hyman (review this issue), and an anglicized version of Norman Rosenthal's *Seasons of the Mind* [see *LTBR* review (1990) 2(2): 8-9] to be published by Collins and Fontana.

Many of us feel that the British "stiff upper lip" attitude to illness and life in general contributes in equal part to the suffering caused by SAD. The stigma attached to mental and chronic illness prevents many people from disclosing their illness to colleagues, friends, and even family members, because they are often ridiculed for being lazy and "giving in" to what seems to many to be a sign of weakness or lack of moral fiber. Until these archaic attitudes are eradicated from the British mentality, those with SAD and other psychiatric and chronic illnesses will continue to suffer in silent guilt and fear of failure in a society where success is highly regarded and rewarded.

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## BOOK REVIEW

### ***SAD: Winter Depression — Who Gets It, What Causes It and How to Cure It***

By Angela Smyth (London: Unwin Paperbacks, 1990, 274 pp, £5.99; New York: Harper Collins, September 1991, 274 pp, \$9.95).

This recent contribution represents the latest addition to a growing list of books written for the SAD sufferer, or the person who suspects he or she is a

SAD sufferer. Ms. Smyth is a journalist specializing in medical issues. Dr. Christopher Thompson, of Southampton University, was a consultant to the project.

I found the title a cause for concern, as it suggests a sensationalistic treatment of SAD. A book which purports to describe exactly who develops SAD, its etiology, and how it is cured, would clearly be promising more than can be delivered at this time. I was therefore glad to find that the text itself treats these topics more conservatively than the title suggests.

The book includes several statements which I find to be of questionable validity, however. For one, the author draws an analogy between SAD and hibernation, which most researchers in the field now consider suspect (e.g., Mrosovsky, 1988). I was also concerned by some cursory comments about the importance of ultraviolet light, without mention of its risks.

The section on antidepressants in particular includes several problematic elements. The author begins by suggesting that "antidepressant medication provides an alternative which is not as effective as light therapy, but is generally better than no treatment at all" (p. 142). She goes on to state that "until SAD became a recognized illness many sufferers were treated with antidepressant medications or tranquilizers, *many of which were unsuitable for the condition, and some of which made their symptoms worse*" (p. 142, italics added). The author then provides a table of *Common Drugs Used to Treat SAD*. This material goes far beyond our present knowledge of the effect of medication on SAD sufferers.

At times I found the book's organization confusing. When I wanted to return to the section on models of SAD, it took some hunting before I realized it was in a chapter called *Seeing the Light*. Similarly, a chapter entitled *Understanding SAD* summarizes the nature of depression, cognitive therapy, and sleep.

I have not seen the U.S. edition, but hope that the *Resources* section has been revised. In particular, a listing of "useful addresses" does not include any resources outside England and Ireland.

*SAD* has several strengths that distinguish it from other books for the public. The section on treatment

is particularly thorough, comprising more than half the total length of the book. Another section discusses other disorders associated with light deficiencies, although calling light the "treatment of the future" seems hyperbolic. The section on competing models of the etiology of SAD is also the most complete I have seen in this type of book. Among the topics discussed are the melatonin-excess hypothesis, phase disturbances, the role of serotonin and dopamine in SAD, and light sensitivity. Though brief, the summaries are generally balanced and informed, and convey the tentative nature of our knowledge in these areas.

In summary, *SAD* has a number of strengths and weaknesses as a resource manual for SAD sufferers. If I were to recommend one book on SAD, it would still be Dr. Norman Rosenthal's *Seasons of the Mind* [1989; reviewed in *LTBR* (1989) 2(2): 4-5]. However, for the person who wants to learn more about the competing models of SAD, and about the uses of light therapy in general, Smyth's *SAD* would serve as an informative secondary source.

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## BOOK REVIEW

### *Light: Medicine of the Future*

By Jacob Liberman, O.D., Ph.D. (Santa Fe, NM:  
Bear & Company, 1991, 212 pp, \$22.95).

This new book is written for a lay audience. It describes the effects of light on biological rhythms and the use of light to treat a variety of clinical disorders. The focus of the book is actually not on "traditional" bright, full-spectrum light therapy, but rather on the use of colored light.

The book is divided into three major sections. The first part is meant as background and describes the

neural pathways involved with light, the role of the pineal, the use of color to heal, the concept of light as a nutrient and the problem of "malillumination" ("an improper 'light diet'"). The second section deals with the application of light to various clinical settings, providing a historical perspective for the use of colored light therapy. The author discusses the use of light to treat seasonal affective disorder, cancer, premenstrual syndrome, sexual dysfunction, jet lag, stress and other problems. The final section provides his philosophy of illness, and the author's proposal for a holistic approach to healing using colored light.

The author is among a small number of optometrists who received postgraduate training from the College of Syntonic ("to bring into balance") Optometry. Syntonic optometrists use colored light to treat some types of vision problems, such as small visual fields and myopia. Some of these practitioners, including the author, also use colored light to treat learning disabilities. That these controversial therapies exist, and are expounded upon in this book, is important for SAD researchers and clinicians to appreciate if alternative types of light therapies need to be included when regulatory matters are considered.

Learning about color therapy was the best part of this otherwise seriously flawed book. I had major problems with the description of physiological processes, the minimizing of the danger of ultraviolet (UV) light, and the philosophy of light treatment.

The descriptions of the role of light in basic human physiology were often questionable. For example, the author writes as though the exact role of the pineal and melatonin in the biological timing system were fully understood. He describes "solar energy cells" in the skin that are purportedly the human equivalent of chloroplasts in plants, and he suggests that people are capable of photosynthesis. Further, it is certainly not generally accepted that "light traveling through the eyes directly affects the nutrients in the blood, allowing them to be completely absorbed by the body as usable food." He continues by suggesting that "most foods are actually light in solid form." There was no reference for the statement that "different colors of radiation interact differently with the endocrine system to stimulate or inhibit hormonal production." Foods of various colors are supposed to affect specific organs and glands as well.

Applications of research to humans were often derived directly from animal research or from *in vitro* studies,

without distinguishing among them. Such material can be used successfully to generate and support hypotheses, but should not be cited without explaining to the readers, especially to a lay audience, that the research needs to be directly substantiated in humans. It is notable that relevant animal literature was cited when it supported the author's case, despite his declaration elsewhere that "it is impossible to come to valid scientific conclusions based on [laboratory animal] experiments."

The author believes that "the ultraviolet issue has been exaggerated beyond belief," in part by "supposedly knowledgeable scientists [who are] creating . . . a climate of fear." To counteract such views, he has compiled a list of alleged health benefits of UV light besides the acknowledged role in calcium metabolism, including decreased blood pressure and cholesterol, increased cardiac output, facilitated weight loss and increased levels of solatriol (1,25(OH)<sub>2</sub>-Vitamin D<sub>3</sub>) and of male and female hormones. While he provides references for these claims, most were based on human studies performed before 1960 or on animal work that has not been repeated in human subjects. It would have been preferable to cite more recent human research on these important claims, if the earlier work has indeed been corroborated. He clearly downplays recent research on the dangers of UV light and suggests that people increase their exposure to natural sunlight. He recommends that people limit the use of sun blocks, sunglasses, contact lenses and prescription glasses that

do not transmit UV light, and that they replace regular glass windows with plastic ones that transmit UV light. It should be made clear that this advice is his opinion, not the view of the medical community.

A major section of the book consists of the author's philosophy of light treatment. According to him, when energy flow through the body is decreased, disease can ensue. Treatment with the appropriate color would then release blocked energy, "rebalance the vibratory rhythms of the body," and result in "very deep cellular transformation." He predicts that light therapy will replace present day psychotherapeutic approaches in dealing with emotional problems. It seems to me that these points remain open to debate.

In conclusion, this book represents a different approach than the others that have been recently published on light therapy, since color is in the forefront. Its most serious problem is that it presents its material as though substantiated, when it is based on theories that have not been subjected to rigorous scrutiny in the scientific and medical arenas. I share his hope that light will be used creatively in the future, but his book is premature in this regard.

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# BULLETIN BOARD

## WELCOME TO NEW MEMBERS

We welcome the following new members who have joined SLTBR since publication of the *LTBR* November 1990 issue:

### Regular Member

Daniel P. Cardinali

### Associate Members

|                        |                        |
|------------------------|------------------------|
| John M. Booker         | Yung Sik Chung         |
| Michael J. Confusione  | Maria R. Corral        |
| Douglas C. Dicharry    | Barbara J. Haller      |
| Joyce L. Hocker        | Winston E. Kirkland    |
| Cynthia R. Kleinknecht | Jean-Claude Le Guillou |
| Mona Hoynowski         | Maria Macko            |
| Wolfgang Ritz          | Solomon K. Slobins     |
| Martin P. Szuba        | Garry R. Waggoner      |
| James J. Wellman       | Steven A. Zilber       |

### Corporate Member

Health Light, Inc.

## MEMBERSHIP RENEWAL REMINDER

If we have received your 1991 membership renewal, the cover letter included with this newsletter so indicates. Those who have not renewed may do so by completing the renewal form enclosed with their mailing and returning it to the SLTBR office (P.O. Box 478, Wilsonville, OR 97070) with their dues payment in U.S. dollars. Individuals who have not renewed by the time the May 1991 issue of *LTBR* is published will be removed from the membership roster and mailing list. Thus, if you do not renew promptly, this will be your last issue of *LTBR*.

## MEMBERSHIP DIRECTORY POSTPONED

Due to holiday mail time lag, our European members did not receive their membership renewal forms until after the new year. In order to allow them additional response time — especially in view of our request for dues payment in U.S. dollars — we have postponed

publication of the 1991 membership directory. We urge all members to send in their renewal forms and dues as soon as possible so that the directory can be finalized and printed.

## SLTBR DEVELOPS INFORMATION PACKET

Our executive office continues to process an increasing number of inquiries about SAD and requests for clinical referrals. We have received an average of 200 letters per week since 1 January from potential SAD sufferers and physicians. Most are the direct result of reference to SLTBR in articles published in magazines with broad U.S. circulation, as well as those printed by local news services. Recent coverage includes articles in *American Health*, *Employee Assistance*, *Woman's Day*, *Medical Tribune*, *U.S. Air Magazine*, *Special Report: On Health* and *The Boston Globe Magazine*. Newspaper articles in Sacramento, CA, Dallas, TX, Chicago, IL, Detroit, MI, Boise, ID and Eugene, OR have also referred readers to SLTBR for additional information.

We have found that the variety of specific requests cannot be answered in our public information brochure alone and any effort to personalize even a few of our responses would drain both our budget and office time, in spite of the receipt of self-addressed, stamped envelopes. Consequently, we have developed an information packet, available from our office postpaid with payment of \$5.00, which includes the following items:

- SLTBR's *Public Information Brochure*
- A list of primary research centers in the United States and other countries
- A geographically appropriate list of clinician members of our Society accepting patient inquiries through the Society
- Two bibliographies of recent works in the field, one for the layperson and one for clinicians
- SLTBR's publications list and order form
- SLTBR membership application

Our cover letter accompanying this packet advises

individuals who believe they suffer from SAD to consult a qualified clinician. In addition, we have included two disclaimers: 1) SLTBR does not provide light specifications or endorse any particular lighting apparatus, and 2) SLTBR does not endorse the practice of or treatment by any clinician whose name may be provided in the referral list.

Please note that we are providing clinician referral information only for those members who have specifically indicated on their renewal form that they are willing to be included in such a list. If you did not check the "referral box" when you renewed your membership and now wish to be listed for clinical referral, please write to Marty McCullough at the SLTBR office, P.O. Box 478, Wilsonville, OR 97070.

We ask that members giving interviews for publication include reference to this information packet and the \$5.00 charge if recommendation is made to contact SLTBR. Response to requests for information unaccompanied by payment for the packet will be a letter describing the packet and its cost. We also request that members help build our press coverage file by clipping articles relating to light treatment, especially those containing specific

reference to SLTBR, and sending the original or a copy to our executive office.

### ARE YOU ALSO PRESENTING AT APSS?

Because of the proximity (and affiliation) of SLTBR and APSS annual meetings this year, APSS participants may wonder whether it is appropriate to present similar posters/papers to both audiences. Since the *SLTBR Abstracts* have become a specialized, archival source for new lighting research, those who have already submitted APSS abstracts are encouraged also to report their new data at our meeting.

Here is the formula, based on the perspective that the two meetings are interdependent, but that not everyone will attend both: If your SLTBR abstract contains text or data elaborating on your APSS abstract — even if there is some overlap — it will be included independently in *SLTBR Abstracts* (1991) vol. 3. If, on the other hand, you submit the identical abstract for both meetings, the SLTBR publication will include a footnote cross-referencing the work to *Sleep Research*. The SLTBR abstract submission form provides a space for you to register the latter option.



Society for Light Treatment  
and Biological Rhythms

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