

The Top Ten Papers of Light Treatment and Biological Rhythms:

How do we know what we think we know?

Lerner, A.B., Case, J.D., Takahashi, Y., Lee, T.H., Mori, W. (1958). Isolation of melatonin, the pineal gland factor that lightens melanocytes. *Journal of the American Chemical Society*, 80: 2587.

The above citation was the first paper on melatonin which stimulated an entire field of study into biological rhythms, biological effects of light, and finally light treatment. At the Education Course of the Sixth Annual Meeting of the SLTBR, 1994, Dr. Dan Oren surveyed the SLTBR membership as to their choices for the 10 most influential papers in the history of light treatment and biological rhythms. Herewith, in order of appearance in peer-reviewed journals, are the results of the SLTBR collective wisdom.

1980 Lewy, A.J., Wehr, T.A., Goodwin, F.K., Newsome, D.A., & Markey, S.P. (1980). Light suppresses melatonin secretion in humans. *Science*, 210(4475), 1267-9.

1984 Rosenthal, N.E., Sack, D.A., Gillin, J.C., Lewy, A.J., Goodwin, F.K., Davenport, Y., Mueller, P.S., Newsome, D.A., & Wehr, T.A. (1984). Seasonal affective disorder. A description of the syndrome and preliminary findings with light therapy. *Archives of General Psychiatry*, 41(1), 72-80.

1985 Rosenthal, N.E., Sack D.A., Carpenter, C.J., Parry, B.L., Mendelson, W.B., & Wehr, T.A. (1985). Antidepressant effects of light in seasonal affective disorder. *American Journal of Psychiatry*, 142(2), 163-70.

1986 Wehr, T.A., Jacobsen, F.M., Sack, D.A., Arendt, J., Tamarkin, L., & Rosenthal, N.E. (1986). Phototherapy of seasonal affective disorder. Time of day and suppression of melatonin are not critical for antidepressant effects. *Archives of General Psychiatry*, 43(9), 870-5.

1986 Czeisler, C.A., Allan, J.S., Strogatz, S.H., Ronda, J.M., Sanchez, R., Rios, C.D., Freitag, W.O., Richardson, G.S., * Kronauer, R.E. (1986). Bright light resets the human circadian pacemaker independent of the timing of the sleep-wake cycle. *Science*, 233(4764), 667-71.

1987 Lewy, A.J., Sack, R.L., Miller, L.S., & Hoban, T.M. (1987). Antidepressant and circadian phase-shifting effects of light. *Science*, 235(4786), 352-4.

1989 Terman, M., Terman, J.S., Quitkin, F.M., McGrath, P.J., Stewart, J.W., & Rafferty, B. (1989). Light therapy for seasonal affective disorder. A review of efficacy. *Neuropsychopharmacology*, 2(1), 1-22.

1989 Czeisler, C.A., Kronauer, R.E., Allan, J.S., Duffy, J.F., Jewett, M.E., Brown, E.N., & Ronda, J.M. (1989). Bright light induction of strong (type 0) resetting of the human circadian pacemaker. *Science*, 244(4910), 1328-33.

1990 Terman, J.S., Terman, M., Schlager, D., Rafferty, B., Rosofsky, M., Link, M.J., Gallin, P.F., & Quitkin, F.M. (1990). Efficacy of brief, intense light exposure for treatment of winter depression. *Psychopharmacology Bulletin*, 26(1), 3-11.

1993 Wirz-Justice, A., Graw, P., Krauchi, K., Gisin, B., Jochum, A., Arendt, J., Fisch, H.U., Buddeberg, C., & Poldinger, W. (1993). Light therapy in seasonal affective disorder is independent of time of day or circadian phase. *Archives of General Psychiatry*, 50(12), 929-37.