

CURRICULUM VITAE

NAME Victor S. Koscheyev

PRESENT POSITION

Senior Research Associate/Professor
Department of Integrative Biology and Physiology
Medical School
University of Minnesota

Senior Member Graduate School Faculty in Kinesiology –
2005

Senior Member Graduate School Faculty in Integrative
Biology and Physiology - 2007

OFFICE ADDRESS

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BIRTHPLACE

Urulga, Russia

STATUS

U.S. Citizen

SCHOOLS ATTENDED

DATES

MAJOR

DEGREE

Irkutsk Medical Institute

1956-1962

General Medicine

M.D.

Institute of Biophysics, Moscow

1962-1965

Hygiene and

Occupational Diseases

M.S.

Institute of Biophysics, Moscow

1965-1966

Doctor of Philosophy

in Medical Science

Sc.D.

Institute of Biophysics, Moscow

1966-1975

Disaster Medicine

Ph.D.

PRIOR POSITIONS

Senior Fellow, School of Kinesiology, University of Minnesota

April 1996-May 2007

Adjunct Professor, Department of Integrative Biology and Physiology

December 2006-May 2007

Associate Member Graduate School Faculty – 1997-2005

Senior Fellow, Division of Environmental and Occupational Health, University of
Minnesota

January 1994-March 1996

National Research Council Fellow, Armed Forces Radiobiology Research Institute (AFRRI) and University of Minnesota
January 1993 - December 1993
Head of Department of Medical Biological Affairs, Russian Ministry of Health
January 1992 - November 1992
Director, Specialized Center for Disaster Medicine "Protection", Moscow
January, 1990- November, 1992.
Chief Medical Officer at Chernobyl
May - June, 1986; September - October, 1986
Head of Ph.D. granting Department of Human Performance in Extreme and Disaster Environments, Institute of Biophysics and Center for Disaster Medicine "Protection"
1983 - 1992
Ph.D. adviser - 23 students
Professor, University of Perkenyer, Czechoslovakia
1982 -
Chief, Department of Extreme Problems, Institute of Biophysics, Moscow
January, 1975 - December, 1991; Deputy Director, Institute of Biophysics
January, 1989-November, 1991.
Professor, Institute of Biophysics, Moscow 1978 -

EDITORIAL ACTIVITIES

Medical -Technical Problems in Individual Protection - Chief Editor

Journal of Disaster Medicine - Chief Editor

Sanitary and Hygiene - Editorial Board

Labor Hygiene - Editorial Board

Koscheyev, V.S. (1985). Russian edited version of P.B. Bennett and D.N. Elliott, The physiology and medicine of diving (3rd ed.).

Reviewer, Aviation, Space, and Environmental Medicine, Prehospital and Disaster Medicine

INTERNATIONAL ACTIVITIES

Organized and first president, Association of Eastern European Countries, Individual and Collective Disaster Protection, 1990

International Congress of Man - Made Disasters, Rome, 1991 (Government Representative)

Commission of the European Communities, Paris, 1990 (Government Representative)

Meetings of the International Atomic Energy Agency, 1987, Vienna (Government Representative)

Joint projects with Eastern European Countries - Czechoslovakia, Eastern Germany, Bulgaria, Hungary), 1975-1986

Member, Monterey Center for Nonproliferation Studies, Bioterrorism Response Committee 2001 – present

Board Member – World Association for Disaster Medicine;
Chair - Nuclear, Biological, and Chemical Hazards Task Force 2005-present

RESEARCH FUNDING AT UNIVERSITY OF MINNESOTA

Thermoregulation and Heat Exchange in a Nonuniform Thermal Environment During Simulated Extended EVA. NASA - 9/1/95 - 8/31/98. \$699,032 Total Costs. Principal Investigator.

Evaluation of Respirator Comfort. 3M Corporation - 4/20/97 - 4/19/98. \$34,264 Total Costs. Principal Investigator.

Finger Comfort Management During Long-Duration EVA (Pilot Test). NASA - 7/98 - 10/98. \$49,000 Total Costs. Principal Investigator.

An Innovative Physiologically Based Advanced Liquid Cooling/Warming Garment for Routine and Emergency EVA. NASA Direct Costs - \$429,997, 2/1/00 – 7/31/02. Principal Investigator

Physiological Principles in Clothing Design for Extreme Environments. 3M Corporation – 2/00 – 5/00 - \$16,000 Direct Costs. Principal Investigator.

Development of a Finger Calorimeter to Indicate General Thermal State of Astronauts Onboard and During EVA. NASA. Direct costs - \$408,778, 3/21/03 – 12/20/06. Principal Investigator

Intraoperative Temperature Regulation in Children Using a Liquid-Warming Garment. Minnesota Medical Foundation - \$13,000, 6/15/04 – 6/15/07. Co-Investigator.

Comparison of the Effectiveness of Specific Body Zone Cooling to Stabilize Comfort of Athletes Exercising at Different Intensity Levels. Jack and Gretchen Norqual Foundation - \$45,000 – 10/23/06 – 5/31/07. Principal Investigator. -

Test and evaluation of liquid cooling garments. NASA Collaborative Agreement. \$149,654 – 6/1/07 – 12/31/07. Principal Investigator.

HONORS

NASA Certificate of Recognition for the creative development of a technical innovation – February, 2004

BOOKS

- Koscheyev, V.S. (1981). Physiologic and hygienic individualized protection for persons in extreme cold. Moscow: Medicine. (Russian)
- Koscheyev, V.S. (Ed.) (1982). Collected Works. Extreme physiology and individual protection. Moscow: Medicine. (Russian) _
- Koscheyev, V.S. (Ed.) (1985). Collected Works. Extreme physiology and individual protection. Moscow: Medicine. (Russian) _
- Koscheyev, V.S. (Ed.) (1987). Collected Works. Extreme physiology and individual protection. Moscow: Medicine. (Russian) _
- Goldshtein, D.S., & Koscheyev, V.S. (1983). Organization of personal protection in the nuclear industry, Energoatomizdal. (Russian)
- Petrayanov, I.V., Koscheyev, V.S., & Basmanov, P.I. (1984). "Lepestock", light respirators. Moscow: Science. (Russian)
- Koscheyev, V.S. (1986). Handbook of individual protection of personnel of atomic power stations and physiological hygienic requirements for isolated protective equipment. Energoatomizdal. (Russian)
- Koscheyev, V.S. & Kuznetz, E.I. ((1986). Physiological and hygienic individualized protection for persons in extreme heat. Medicine. (Russian)
- Koscheyev, V.S., Sedov, A.V., & Klemparskaya, N.N. (1987). Antimicrobial materials in medicine. Moscow: Medical - Technical Problems in Individual Protection. (Russian)
- Koscheyev, V.S., Goldshtein, D.S., & Klochkov, V.N. (1992). Individual protection of persons working in atomic energy. Energoizdat. (Russian)

PUBLICATIONS

- Koscheyev, V.S., Makarov, V.I., & Romanenko M. I. (1970). An electrowarming protective suit for workers in cold conditions. Collected works, Medical-Technical Problems of Individual Protection. (Russian)
- Koscheyev, V.S., Levashov, U. M., & Romanenko M. I. (1970). Respirator (Inventory) A. R. N295631 USSR 11.23 1970. (Russian)
- Koscheyev, V.S., & Romanenko, M. I. (1973). Concerning the hygienic meaning of air movement in underwear for space. Sanitary and Hygiene, 3, 43-48. (Russian)
- Koscheyev, V.S., Sticharev, A.A., & Salivon, S.G. (1974). Problems of studying physiological reactions in cold conditions and follow warming for normalization. Collected Works, Adaptation and Problems of Pathology, Novosibirsk, 49-61. (Russian)

- Koscheyev, V.S., & Bogachuk, G.P. (1974). Handbook for Sanitary - Toxicological Evaluation of Polymeric Materials for Individual Protection Equipment. Moscow, 125 pp. (Russian)
- Koscheyev, V.S., Salivon, S.G., & Bogachuk, G.P. (1975). The primary principles of sanitary- toxicological and physiological - hygienic evaluation of individual equipment. Sanitary and Hygiene, 2, 7-16. (Russian)
- Koscheyev, V.S., Bavro, G.V., & Makarov, V.I. (1976). The substantiation of optimal topography for placing heat on the body in extreme conditions. Hygiene of Labor and Occupational Diseases, 9, 25-30. (Russian)
- Koscheyev, V.S., & Chetvericova, Z. S. (1978). Principles of individual protection of chemical industry personnel. International symposium, " Prophylactic measures against accidents in the chemical industry." Secura-78. Warsaw. (Russian)
- Koscheyev, V.S., Kuznets, E.I., & Yakovleva, E.V. (1978) New approaches for evaluating heat exchange of cosmonauts. Collected Works, IX International symposium, "Space biology and medicine." Prague, Czechoslovakia (Russian)
- Koscheyev, V.S., Bavro, G.V., & Yarov, A.S. (1978). Research for the design of liquid tube suits for hot and cold environments. Manuscript, 112 pp. (Russian)
- Koscheyev, V.S., Rasran, M.A., Ter-Akopjan, M.A. (1978) Methods for studying heat exchange of the human body by convection . Manuscript. 130 pp. (Russian)
- Bavro, G. V., & Koscheyev, V.S. (1979). Selection of the optimal temperature warmth of a liquid agent for space suit use for heat normalization in cold conditions. Journal of Physiology, 11, 17-24. (Russian)
- Koscheyev, V.S., Scvorcova, T. N., & Lipchanskaya, N. G. (1979). Mask (Inventory). Russian Priority 130523, 06.04, 1979. (Russian)
- Koscheyev, V.S., Petrovsky A.M., Novoseltcev V.N (1980). The problem of mathematical modelling of thermoregulation of the human body in protection equipment. Collected Works, Medical-Technical Problems Individual Protection, Medicine, 3-10. (Russian)
- Petrovsky, K.G., Koscheyev, V.S., & Novoseljcev, N.M. (1980). A mathematical model of thermoregulation of humans using warming equipment. " Modelling of systems in biology and medicine." Symposium, Prague Czechoslovakia, 2, 48-52. (Russian)
- Elkin, E.N., Koscheyev, V.S., & Novak, A.A. (1980). Prognosis of heat status of the human body when breathing gases mixed with different heat contents under high level air pressure. "Evaluation and prognosis of physiological functioning". Symposium, Frunze, 34-37. (Russian)

- Koscheyev, V. S., & Sedov A.V. (1981). Hygienic problems related to using aquanaut wet type suits. Sanitary and Hygiene, 4, 36-41. (Russian)
- Elkin, E. N., Koscheyev, V.S., & Novak, A.A. (1981). Respiratory heat exchange of the human body in hyperbaria . VII International Congress of Hypobaric Medicine, Moscow. (Russian)
- Molodtsov, A.N., Ivanov, V.A., Koscheyev, V.S., et al. (1981). Water warming suit (Inventory). USSR Priority, 797179, 09.15.1981. (Russian)
- Rogovin, Z.A., Emman, A.A., & Koscheyev, V.S. (1982). Unwoven filter materials. (Inventory), USSR Priority, 897259, 01.18 1982. (Russian)
- Koscheyev, V.S., Chadov, V.I., & Iseyev, L.R. (1982). The results of physiological research of sports climber candidates for Everest. Manuscript, 148 pp. (Russian)
- Koscheyev, V.S., & Sobolevsky, M.A. (1982). Some approaches to analysing the physiological status of the human organism in extreme conditions. Medical-Technical Problems in Individual Protection, 23, 3-10. (Russian)
- Koscheyev, V.S., & Kuznets, E.I. (1982). Physiology of human activity in extreme conditions and the primary ways for individual protection. Collected Works, Extreme Physiology and Individual Protection, 3-8. (Russian)
- Koscheyev, V.S., Basaraba, I.N., & Sedov, A.V. (1983). Effect of extended salt water sea influences on the skin of men and prophylactics. Collected Works, Functional Status of the Human Body in Conditions of Hypobaria and Water Environments. Moscow, 27-34. (Russian)
- Petryanov, I.V., Koscheyev, V.S., & Basmanov P. (1984). Light Respirators. Science Moscow, 216 pp.. (Russian)
- Koscheyev, V.S. & Kuznets E.I. (1985). Actual problems of heat exchange and thermoregulation of the human body in the isolated individual protection equipment as related to space flights. Collected works, Medico-technical problems of individual protection of the human body. Research and development of safety systems for space flights, Medical - Technical Problems in Individual Protection, 3-13. (Russian)
- Koscheyev, V.S., Martens, V.K., & Lartsev, M.A. (1987). Peculiarities of accident consequences/Immediate and late consequences of Chernobyl NPP accident. Collected materials of All-Union symposium. Medical - Technical Problems in Individual Protection. (Russian)
- Koscheyev, V.S., Korostin, A.S., et al. (1987). Individual personal protection during the elimination of Chernobyl NPP accident after-effects: Collected methodic and standard documents, Medical - Technical Problems in Individual Protection. (Russian)

- Koscheyev, V.S. (Ed.). (1988). Physiologic, hygienic and psychophysiologic problems of human personal protection. Collected works. Medical - Technical Problems in Individual Protection, 199. (Russian)
- Koscheyev, V.S., Chadov, V.I., Novak, L., & Barak, I. (1988). Study of thermoregulation and "Problems of Space Biology and Medicine", Brno Czechoslovakia, June 13-16, 1988, 88. (Russian)
- Koscheyev, V.S., Korostin, A.S., & Rajkhman, S.P. (1989). Personnel protection during a reactor accident. In Medical aspects of the Chernobyl accident (pp. 145-150). International Atomic Energy Agency, Vienna.
- Koscheyev, V.S., Kuznets, E.I., Chadov, V.I., Novak, L., Barak, A., Vilgelm, Z., & Ulichny, B. (1989). Study of the specific thermoregulation and heat exchange in antigravity modeling conditions, *Scripta Medica Czechoslovakia*, vol. 62(4), pp.223-228. (Russian)
- Koscheyev, V.I., Kuznets, E., & Utehin, B. (1990). Specifics of human thermoregulation in antiortostatic hypokinesia. IX All-Union conference on Space Biology and Avia-Cosmic Medicine, Caluga. (Russian)
- Koscheyev, V.S., Kuznets, E.I., Konovalov, V., & Saveljeva, L. (1990). Regarding the features of heat exchange of the human body in severe conditions. Collected works, "Results and research perspectives of the optimization of human functioning on the Sea", Medical - Technical Problems in Individual Protection, 3-17. (Russian)
- Koscheyev, V.S., Bobrov, A.F., & Kuznets, E. (1991). Principles of standardization in applied medico-technical research. Collected works, "Functional status of the human body in extreme conditions. Evaluation and prognosis", Medical - Technical Problems in Individual Protection, 4-9. (Russian)
- Koscheyev, V.S., Chadov V.I., Kuznets, E.I., & Malkiman, I. (1991). The principal basis of individual protection of human being against high temperature of the environment. Collected works, "Medico-technical problems of individual protection", Medical - Technical Problems in Individual Protection, 3-8. (Russian)
- Koscheyev, V.S., Kuznets, E., Konovalov, B., & Utehin, B. (1991). Approaches for solving problems of supporting an optimal microclimate in the space ship in long-term flight to Mars. Collected works, "26 Cyalkovscy Readings". (Russian)
- Kamushenko, E.D., Kipor, G.V., Koscheyev, V.S., & Nyemsev, A.N. (1992). Problems of organizing a system of emergency medicine in the Russian Federation in disaster conditions. Disaster Medicine, 1, 6-10. (Russian)
- Koscheyev, V.S., Kuznets, E.I., Salivon, S.G., et al. (1992). Manual on the hygienic investigations of personal protective equipment. Medical - Technical Problems in Individual Protection. (Russian)

- Koscheyev, V.S., Martens, V.K., Bashir-Zade, R.S., Belyakov, A.A., Kypor, G.C., Visochanski, A.V., Lartzev, M.A., Rode, A., Hette, M., & Malakhov, M. (1992). Previous investigations of circumpolar stress. In R.J. Shephard and A. Rode (Eds.). Medicine and Sports Science. Vol. 33. Observations on the Soviet/Canadian transpolar ski trek (pp. 13-18). Basel: Karger.
- Booth, M.A., Thoden, J.S., Reardon, F.D., Jette, M., Quenneville, J., Rode, A., Koscheyev, V.S., Martens, V.K., Bashir-Zade, T.S., Belyakov, A.A., Kypor, G.V., & Visochanski, A.V. (1992). Physical working capacity and body composition. In R.J. Shephard and A. Rode (Eds.). Medicine and Sports Science. Vol. 33. Observations on the Soviet/Canadian transpolar ski trek (pp. 44-58). Basel: Karger.
- Koscheyev, V.S., Lartzev, M.A., Rode, A., & Malakhov, M. (1992). Psychic adaptation of participants. In R.J. Shephard and A. Rode (Eds.). Medicine and Sports Science. Vol. 33. Observations on the Soviet/Canadian transpolar ski trek (pp. 71-105). Basel: Karger.
- Bobrov, A.F., Koscheyev, V.S., & Kuznets, E.I. (1992). Principles of Man's Functional State Ratings in Applied Biomedical Studies. In M.P. Roshchevsky (Ed.), Manuscript, Moscow. (Russian)
- Koscheyev, V.S., Martens, V.K., Kosenkov, A.A., Lartsev, M.A., & Leon, G.R. (1993). Psychological functioning of Chernobyl nuclear power plant operators after the nuclear disaster. Journal of Traumatic Stress, 6, 123-130.
- Koscheyev, V.S., & Leon, G.R. (1994). Strategies for test battery selection for screening large populations exposed to radiation disaster situations. Washington D.C.: Armed Forces Radiobiology Research Institute.
- Koscheyev, V.S., Roschina, N.A., & Makhov, V.V. (1994). Psychophysiological characteristics related to the functional state of the members of the Soviet-American Arctic "Bering Bridge" expedition. Environment and Behavior, 26, 166-178.
- Koscheyev, V.S., Leon, G.R., & Greaves, I.A. (1996). Introduction. In Proceedings of the conference, After Everyone Leaves: Preparing For, Managing, and Monitoring Mid-and Long-Term Effects of Large-Scale Disasters. Bloomington Minnesota October 1994. Prehospital and Disaster Medicine, 95.
- Koscheyev, V.S., & Greaves, I.A. (1996). Public health problems after large-scale disasters. In Proceedings of the conference, After Everyone Leaves: Preparing For, Managing, and Monitoring Mid-and Long-Term Effects of Large-Scale Disasters. Bloomington Minnesota October 1994. Prehospital and Disaster Medicine, 103-104. (Abstract)
- Koscheyev, V.S., & Leon, G.R. (1996). The Russian translation and preliminary adaptation of the MMPI-2. In J.N. Butcher (Ed.). Handbook of international MMPI-2 research and clinical applications (pp. 385-394). Minneapolis, MN: University of Minnesota Press.

- Koscheyev, V.S. (1996). Medical-technical problems of human protection. In Stewart W. Johnson (Ed.). Space V. Proceedings of the Fifth International Conference on Space '96. Vol.2 (pp. 1002-1007). New York: American Society of Civil Engineers.
- Leon, G. R. & Koscheyev, V.S. (1996). Expedition applications to long duration space missions. In Stewart W. Johnson (Ed.). Space V. Proceedings of the Fifth International Conference on Space '96. Vol 2 (pp. 997-1001). New York: American Society of Civil Engineers.
- Koscheyev, V.S., Greaves, I.A., Leon, G.R., Hubel, A., & Nelson, E.D. (1996). Comfort and heat control during extended space flights. Proceedings of the 26th International Conference on Environmental Systems. SAE Technical Paper Series 961538. Warrendale, PA:SAE International.
- Leon, G.R. & Koscheyev, V.S. (1996). Applications of U.S. -Russian expedition research to aerospace settings. Proceedings of the 26th International Conference on Environmental Systems. SAE Technical Paper Series 961612. Warrendale, PA:SAE International.
- Koscheyev, V. S., & Leon, G.R. (1997). Rescue worker and population protection in large-scale disasters involving contamination. Minnesota Medicine, 80, 23-28.
- Koscheyev, V.S., Leon, G.R., & Greaves, I.A. (1997). Lessons learned and unsolved public health problems after large-scale disasters. Prehospital and Disaster Medicine, 12, 49-60.
- Koscheyev, V.S., Leon, G.R., Gourine, A.V., & Gourine V.N. (1997). The psychosocial aftermath of the Chernobyl disaster in an area of relatively low contamination. Prehospital and Disaster Medicine, 12, 41-46
- Leon, G.R. & Koscheyev, V.S. (1997). Cross-cultural polar expedition teams as an analog to long-duration space missions. Proceedings of the 68th Annual Scientific Meeting of the Aerospace Medical Association, May 11-15,1997, Aviation, Space, and Environmental Medicine, 68, 641. (Abstract).
- Leon, G.R. & Koscheyev, V.S. (1997). Application of expedition and polar work group findings for enhancing performance in space. Proceedings of the 12th Man in Space Symposium, June 8-13, 1997, Washington, D.C. (Abstract).
- Koscheyev, V.S. (1997). Five zones of symmetrical and assymetrical conflicting temperatures on the human body: Physiological consequences. Proceedings of the 12th Man in Space Symposium, June 8-13, 1997, Washington, D.C. (Abstract).
- Koscheyev, V.S., Leon, G.R., Tranchida, D., & Taylor, T.J. (1997). Forced and directed heat exchange for providing human body comfort in extreme environments. Proceedings of the 27th International Conference on Environmental Systems. SAE Technical Paper Series 972318. Warrendale, PA:SAE International..

- Koscheyev, V.S. (1997). Disaster management in extreme environments. Prehospital and Disaster Medicine, 12, S18-19. (Abstract).
- Leon, G.R., & Koscheyev, V.S. (1997). Psychosocial sequelae of disasters in the acute phase and during mid- and long-term recovery periods. Prehospital and Disaster Medicine, 12, S28. (Abstract).
- Koscheyev, V.S., Leon, G.R., Nesser, T., Tranchida, D., & Taylor, T.J. (1998). Components of respirator comfort: A comparison of the 3M CFR and 42 CFR respirators. Technical Report, 3M Occupational Health and Safety Division, January 1998.
- Koscheyev, V.S. & Leon, G.R. (1998). Report of Adeli suit pilot testing in the United States. Technical Report, Courage Center, Golden Valley, MN, July 1998.
- Koscheyev, V.S., Paul, S., Leon, G.R., Tranchida, D., Taylor, T., & Koscheyev, I.V. (1998). Body surface temperature tuning as a comfort support system in space and other extreme environments. Proceedings of the 28th International Conference on Environmental Systems. SAE Technical Paper Series 981723. Warrendale, PA:SAE International.
- Koscheyev, V.S., Leon, G.R., & Trevino, R.C. (December 1998). Finger comfort management during long-duration EVA (Pilot Test). Technical Report. NASA JSC EVA Project Group.
- Koscheyev, V.S., Treviño, R.C., Leon, G.R., Tranchida, D., Linder, I.V., & Baum, I. (1999). Augmentation of blood circulation to the fingers through wrist warming to enhance finger comfort during long-duration EVA. Proceedings of the 29th International Conference on Environmental Systems. SAE Technical Paper Series 1999-01-1969. Warrendale, PA:SAE International.
- Koscheyev, V.S., Paul, S., Leon, G.R., Tranchida, D., Taylor, T.J., & Koscheyev, I.V. (1999). Individual thermal profiles for human comfort management in extreme environments. In J.A. Hodgdon, J.H. Heaney, and M.J. Buono, Environmental ergonomics VIII, International series on environmental ergonomics 1, (pp. 259-262). 1, San Diego: International Conference on Environmental Ergonomics.
- Koscheyev, V.S., Leon, G.R., Paul, S., Tranchida, D., & Linder, I.V. (2000). Augmentation of blood circulation to the fingers by warming distal body areas. European Journal of Applied Physiology, 82, 103-111.
- Koscheyev, V.S., Leon, G.R., Hubel, A., Tranchida, D., & Nelson, E. (2000). Thermoregulation and heat exchange in a nonuniform thermal environment during simulated extended EVA. Aviation, Space, and Environmental Medicine, 71, 579-585.
- Koscheyev, V.S., Leon, G.R., & Treviño, R.C. (2000). Maximal conductive heat exchange through different body zones in a liquid cooling/warming space garment.

Proceedings of the 30th International Conference on Environmental Systems. SAE Technical Paper Series 2000-01-2255. Warrendale, PA:SAE International.

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- Koscheyev, V.S., Leon, G.R., & Trevino, R.C. (2001). Efficacy of wrist/palm warming as a countermeasure to maintain finger comfort in cold conditions. Aviation, Space, and Environmental Medicine, *72*,713-719.
- Koscheyev, V.S., Dancisak, M.J., & Leon, G.R. (2001). Approaches to monitoring thermal status in humans under nonuniform heating/cooling on the body surface. In Proceedings of the Australian Physiological and Pharmacological Society, *32(2)*, Suppl 1, 84P.
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- Koscheyev, V.S., Leon,G.R., Treviño, R.C. (2002). An advanced physiologically based shortened liquid cooling/warming garment for comfort management in routine and emergency EVA. Proceedings of the 32nd International Conference on Environmental Systems. SAE Technical Paper Series 2002-01-2413. Warrendale, PA:SAE International.
- Coca, A., Koscheyev, V.S., & Leon, G.R. (2002). Comfort management in rest and exercise conditions in an innovative shortened liquid cooling/warming garment. Proceedings of the 32nd International Conference on Environmental Systems. SAE Technical Paper Series 2002-01-2411. Warrendale, PA:SAE International.
- Koscheyev, V.S., Coca, A., Leon, G.R., & Dancisak, M.J. (2002). Individual thermal profiles as a basis for comfort improvement in space and other environments. Aviation, Space, and Environmental Medicine, *73*, 1195-1202.
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- Leon, G. R., Koscheyev, V.S., List, N., & Coca, A. (2003). Comparison of different cooling regimes within a shortened liquid cooling/warming garment on physiological and psychological comfort during exercise. Habitation, 9, 91.
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- Koscheyev, V.S., Leon, G.R., Coca, A. & List, N. (2004). Enhancing blood circulation to lower limbs during head-down tilt by warming upper body and thighs. Aviation, Space and Environmental Medicine, 75, 596-602.
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- Koscheyev, V.S. (2005). Minimizing effects of nuclear, biological, and chemical hazards in large-scale disasters. Prehospital and Disaster Medicine, 20, s95.
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Koscheyev, V.S., Leon, G.R., Coca, A., Kim, J-H., & Treviño, R.C. (2006). Informativeness of the finger temperature/heat flux as an index of human thermal status under local cold influences. Proceedings of the 36th International Conference on Environmental Systems. SAE Technical Paper Series 2006-01-2237. Warrendale, PA:SAE International.

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PAPER PRESENTATIONS

Effectiveness of Using Different Types of Respirators for Internal Contamination, Livermore Laboratories sponsored conference, 1987, San Francisco.

Environmental Impact of the Chernobyl Disaster; Psychological Stress in Chernobyl Power Plant Workers, October 1990, University of Minnesota, Minneapolis.

Psychophysiological Status of A Soviet-American Bering Bridge Expedition Team, December, 1991, University of Minnesota, Minneapolis.

The Center for Disaster Medicine "Protection", A Response to the Chernobyl Disaster, December, 1991, NASA - Ames Research Center, Moffett Field, California.

The Center for Disaster Medicine "Protection", A Response to the Chernobyl Disaster, Armed Forces Radiobiology Research Institute, June 1992, Washington, D.C.

The Center for Disaster Medicine "Protection", A Response to the Chernobyl Disaster, Department of Energy, June 1992, Washington, D.C.

The Development and Initial Standardization of the Russian Language MMPI-2, Annual MMPI Conference and Symposia, March 1993, St. Petersburg, Florida.

The Development of a Battery of Methods for Screening Large Populations After a Large-Scale Disaster, Armed Forces Radiobiology Research Institute, April 1993, Washington, D.C.

Russian Experience in the Development of Protective Clothing for Extreme Thermal Environments, April 1993, U.S. Army Research Institute of Environmental Medicine, Natick, Massachusetts.

Psychophysiological Functioning of A Soviet-American Bering Bridge Expedition Team, May 1993, University of Ottawa, Department of Human Kinesiology, Ottawa, Canada.

New Research Ideas for the Greater Protection of Persons During Extravehicular Activities, November 1993, NASA Johnson Space Center, Houston, Texas.

New Research Ideas for the Greater Protection of Persons During Extravehicular Activities, February 1994, NASA - Ames Research Center, Moffett Field, California.

Chernobyl Experiences and their Application for the Development of Disaster Curricula for Schools of Public Health, January 1995, Centers for Disease Control, Atlanta.

Invited participant, NASA Symposium, Applications of Space Technology for the Treatment of Multiple Sclerosis, February 1995, NASA Ames Research Center, Moffett Field, California.

The Russian language MMPI-2: Comparisons of Norms in a Time of Stress, Annual MMPI Conference and Symposia, March 1995, St. Petersburg, Florida.

Invited participant, National Research Council Board on Radiation Effects Research, CDC Radiation Assessment Studies Committee, "Psychosocial Effects of Radiation Accidents," April, 1996, Washington, D.C.

Medical-Technical Problems of Human Protection. Fifth International Conference on Space '96, June 1996, Albuquerque, New Mexico.

Comfort and Heat Control During Extended Space Flights. 26th International Conference on Environmental Systems. July 1996, Monterey, California.

Five Zones of Symmetrical and Assymetrical Conflicting Temperatures on the Human Body: Physiological Consequences. 12th Man in Space Symposium, June 1997, Washington, D.C.

Forced and Directed Heat Exchange for Providing Human Body Comfort in Extreme Environments. 27th International Conference on Environmental Systems, July 1997, Lake Tahoe, Nevada

Disaster Management in Extreme Environments. 10th World Congress on Emergency and Disaster Medicine, September 1997. Mainz, Germany

Thermoregulation in Nonuniform Temperature Conditions. Department of Physiology, Free University of Berlin, September 1997, Berlin, Germany

The Individual Thermal Profile as a Health Support Countermeasure for Astronauts and a Basis for a New Comfort Environment Design. International Space Science Symposium, NASA Marshall Space Flight Center, November 1997, Huntsville, Alabama

Current research at the University of Minnesota for NASA. Human Thermal Control Research Meeting, December 1997, NASA Johnson Space Center, Houston, Texas

Improvement of astronaut comfort during EVA and space exploration. EVA Research and Technology Forum, April 1998, NASA Johnson Space Center, Houston, Texas

Body Surface Temperature Tuning as a Comfort Support System in Space and Other Extreme Environments. 28th International Conference on Environmental Systems, July 1998, Danvers, Massachusetts

Update on NASA-Funded Research. EVA Project Working Group. October 1998, University of Maryland, College Park, Maryland

Individual Thermal Profiles for Human Comfort Management in Extreme Environments. The 8th International Conference on Environmental Ergonomics, October 1998, San Diego, California

Finger Comfort Management During Long-Duration EVA; Results of Pilot Test. NASA EVA Project Working Group. December 1998, NASA Johnson Space Center, Houston, Texas

Health Screening in Extreme and Disaster Environments. International Scientific Conference; Health: Its Essence, Diagnosis, and Strategies for Improvement. May 1999, Krynica Gorska, Poland. (Also member of scientific organizing committee).

Augmentation of blood circulation to the fingers through wrist warming to enhance finger comfort during long-duration EVA. The 29th International Conference on Environmental Systems, July, 1999, Denver, Colorado.

Human Comfort Under Nonuniform Temperatures on the Body Surface: The Physiological Design of the Space Suit. NASA EVA Project Working Group. November 1999, Clemson University, Clemson, South Carolina.

Lessons learned from large scale earthquakes in Armenia and Turkey. Paper presented at the IEA 2000/HFES 2000 Congress, August 2, 2000, San Diego, California.

Physiological approaches for the “smart design” of a cooling/warming garment for routine and emergency EVA. Poster presentation, Bioastronautics Investigators’ Workshop, January 17, 2000, Galveston, Texas.

Approaches to monitoring thermal status in humans under nonuniform heating/cooling on the body surface. Paper presented at the International Thermal Physiology Symposium, September 3, 2001, Wollongong, Australia.

Invited participant, Bioterrorism Threat Assessment and Risk Management Workshop, December, 2001, Monterey Institute of International Studies, Center for Nonproliferation Studies, Washington, D.C.

Improvements in comfort and thermal status control of astronauts during extravehicular activities (EVA): Achievements and perspectives. 73rd Annual Scientific Meeting of the Aerospace Medical Association. May 2002, Montreal, Canada.

Thermal stimulation by a cooling/warming garment to increase blood circulation in the lower limbs in head tilt conditions . 5th International Head-out Water Immersion Symposium: Research Simulations to Model Microgravity, October 8, 2002, Houston, Texas.

Advanced thermal status control of crews in EVA and escape suits. World Space Congress-2002, October 16, 2002, Houston Texas.

Thermal control and physiological design as keys to improve comfort, performance and safety during EVA and onboard. Habitation 2004 Conference, January 7, 2004, Orlando Florida.

Theory and practice of astronaut hand protection against cold in open space. 75th Aerospace Medical Association Annual Scientific Meeting, May 3, 2004, Anchorage Alaska.

Physiological principles for EVA garment design. Advanced EVA Technology Forum, June 30, 2004, Houston Texas.

Capability of Shortened and Standard Liquid Cooling Garments to Provide Physiological and Subjective Comfort During EVA. 34th annual meeting of the International Conference on Environmental Systems (ICES), July 2004, Colorado Springs, Colorado.

Physiological design and thermal control to accelerate efficiency, comfort, performance and safety in extremes. Microclimate Cooling Conference, September 15, 2004, Natick Massachusetts.

Physiologically-based approaches to enhance finger comfort in open space and other extreme cold conditions. The 1st Integrated Meeting on Thermal Physiology and Pharmacology of Thermoregulation, October 14, 2004, Rhodes Greece.

Thermoregulation, thermal control and the individual thermal profile with application for childhood obesity. NICHD, Unit on Growth and Obesity, February 2005

Minimizing health effects of NBC hazards in large-scale disasters. 2005 World Congress of Disaster and Emergency Medicine, May 2005, Edinburgh Scotland.

Overview of physiological principles to support thermal balance and comfort of astronauts in open space and on planetary surfaces. 15th Humans in Space Symposium, May 2005, Gratz Austria.

Effect of local hand thermal insulation on total and local comfort under different levels of body heat deficit. 34th International Conference on Environmental Systems, July 2005, Rome Italy.

Implementation of physiological design as a basis for the development of the space suit for planetary missions. Exploration Extravehicular Activity (EVA) Conference, November 2005, Houston Texas.

Control of thermal status of astronauts by a finger calorimeter in the space suit. Habitation 2006 Conference, February 8, 2006, Orlando Florida.

Informativeness of the finger temperature/heat flux as an index of human thermal status under local cold influences. 36th International Conference on Environmental Systems, July 19, 2006, Norfolk Virginia.

Thermal protection of astronauts in EVA. A physiological overview. Spacesuit Systems Technology Development and EVA Physiological Systems and Performance Groups, NASA Johnson Space Center, December 13, 2006, Houston Texas.

Person to person biological heat bypass during EVA emergencies. 37th International Conference on Environmental Systems, July 11, 2007, Chicago Illinois.

Thermoregulation and physiological design to support astronaut comfort during EVA. 12th International Conference on Environmental Ergonomics, August 19, 2007, Piran, Slovenia.