

FALL 2023

# CLIMATE QUARTERLY

*The Newsletter of the Expert Resource Group on Climate Change and Environmental Affairs*



## SAVE THE DATE!



**Scientific Forum F071 - Skin-environmental Interface:  
Dermatologic Challenges of Our Changing Climate  
and Environment**

When: Saturday, March 9, 2024 | 3:30-5:30 PM PT

Location: San Diego Convention Center | Room TBD

**Climate Change & Environmental Issues ERG Annual  
Meeting at the AAD**

When: Saturday, March 9, 2024 | 12:00-2:00 PM PT

Location: Marriott Grand Ballroom 13 | Marriott  
Marquis San Diego Marina - HQ

*Don't forget, when registering for the  
AAD meeting, mark Climate Change as  
your Hot Topic choice.*

## IN THIS ISSUE

---

**CLIMATE CHANGE IN THE  
LITERATURE: 2-3**

---

**POLICY UPDATE: 4-5**

---

**CLIMATE SENSITIVE DISEASE: 6-7**

---

**SUSTAINABILITY & PRACTICE  
MANAGEMENT: 8**

---

**GREEN OFFICE PRACTICES: 9**

---

**ERG HAPPENINGS: 10-11**

---

**CONFERENCE COVERAGE: 11-13**

---

**NEW LEARNING OPPORTUNITIES: 13**

---

**GET INVOLVED: 14**

# CLIMATE CHANGE IN THE MEDICAL LITERATURE

by *Jordan Bui, MS3 and Markus Boos, MD, PhD*

## Impact of climate factors and climate-gene interaction on systemic lupus erythematosus patients' response to glucocorticoids therapy

Zhang T, Xie Q, Wang L, et al. *J Clin Lab Anal.* 2023;37(13-14):e24945. [doi:10.1002/jcla.24945](https://doi.org/10.1002/jcla.24945)

Prior studies suggest that climate factors affect autoimmune disease including systemic lupus erythematosus (SLE); this study evaluated how climate variability influences the efficacy of glucocorticoids (GC) in patients with SLE in China. Between January 2011 and October 2020, 750 patients with SLE on prednisone and hydroxychloroquine were followed and evaluated by rheumatologists using the SLE disease activity index (SLEDAI) at weeks 0, 4, 8, and 12. Climate data including average atmospheric pressure, average temperature, average wind velocity, and sunshine duration were collected daily. The researchers found that, compared to patients who began GC treatment in autumn, those who began treatment in winter had poorer responses to GC treatment even after adjusting for potential confounders. Higher relative humidity was also found to reduce the efficacy of GCs regardless of gender, age, and BMI. Moreover, these climate factors may interact with genetic polymorphisms of the TRAP1 gene to influence the efficacy of GCs in the treatment of SLE. The authors postulate that the mechanism by which these climate variables negatively modulate SLE response to GCs is via their induction of pro-inflammatory cytokines, similar to the effects of UV exposure on SLE. These results suggest that climate factors should be considered when tailoring individual treatments for SLE.



## Flooding and Climate Change and its Effect on Skin Disease

Junejo MH, Khan S, Larik EA, et al. *J Invest Dermatol.* 2023;143(8):1348-1350.

[doi:10.1016/j.jid.2023.02.024](https://doi.org/10.1016/j.jid.2023.02.024)

In 2022, Pakistan experienced increasing temperatures reaching up to 50 °C. This led to accelerated glacier melting and greater rainfall during monsoon season, resulting in flash floods (1). Nearly 33 million people were affected. Additionally, a rise in both communicable and noncommunicable skin diseases due to stagnant water was observed. In Balochistan Province, one of the regions most heavily impacted, nearly one-third of flood-associated illnesses were related to skin disease. Flooding is known to cause a range of dermatologic conditions, including allergic or irritant contact dermatitis, cutaneous infections, and exacerbation of pre-existing conditions such as psoriasis and eczema. Moreover, Balochistan witnessed an increase in snake bites secondary to damaged natural habitats, which often resulted in increased mortality given the limited access to antivenom. Despite contributing less than 1% to the world's total carbon emissions, Pakistan is disproportionately impacted by climate change, which exacerbates existing health inequities. In highlighting these flood-related skin injuries, it is imperative to provide better dermatologic support in affected areas and take measures towards reducing our carbon footprint.

# CONT...CLIMATE CHANGE IN THE MEDICAL LITERATURE

by *Jordan Bui, MS<sup>3</sup>* and *Markus Boos, MD, PhD*

## Public Health Risks, Dermatological Manifestations, and Environmental Justice Associated With Vinyl Chloride Exposure: Narrative Review

Goodman RS, Mittal L, Parker ER. JMIR Dermatol. 2023;6:e48998. [doi:10.2196/48998](https://doi.org/10.2196/48998)

The objective of this study was to provide a review of the dermatological effects of vinyl chloride exposure from industrial spills and other environmental disasters. In February 2023, a Norfolk Southern train derailed and released hazardous chemicals including vinyl chloride into the air, soil and water surrounding the crash site. Acute changes associated with this and other episodes of vinyl chloride exposure include contact dermatitis, frostbite, and vinyl chloride disease (a triad of Raynaud symptoms, sclerodermatous skin

changes, and lytic bone lesions). Specific features of vinyl chloride disease include coarsening of forehead and cheek skin, as well as papules, plaques and nodules on the dorsal hands and forearms, with accompanying hyperhidrosis and pruritus. Vinyl chloride exposure may also predispose to cutaneous malignancy, in addition to hepatic angiosarcoma and fibrosis of extracutaneous sites such as the lungs, liver and kidneys. Treatment following vinyl chloride exposure primarily consists of decontamination to limit toxicity, as there are no established treatments for vinyl chloride-associated cutaneous manifestations. Increased regulation to verify integrity of industrial infrastructure is also paramount as a preventative measure, as the risk of disastrous chemical spills is increased in a world with a rapidly changing climate and more frequent, severe weather events.

## UNIFIED CALL TO ADDRESS THE INDIVISIBLE CLIMATE AND NATURE CRISIS AS A GLOBAL HEALTH EMERGENCY

### Time to Treat the Climate and Nature Crisis as One Indivisible Global Health Emergency

Abbasi K, Ali P, Barbour V, et al. JAMA Dermatol. 2023. [doi:10.1001/jamadermatol.2023.4902](https://doi.org/10.1001/jamadermatol.2023.4902)

#### *Summary by Rachel Goodman, MBA, MS<sup>4</sup>*

More than 200 leading medical journals from around the world once again joined in simultaneously publishing a call to action, rallying the United Nations, policymakers, and health professionals to address the intertwined challenges of climate change and biodiversity depletion as a shared global health emergency. This editorial forewarns that the repercussions of climate change have ripple effects across ecosystems. These crises, often approached in isolation, deeply impact global

health and demand cohesive solutions. Climate impacts and biodiversity loss synergistically threaten environmental stability and escalate health risks ranging from resource scarcity and forced migration to a surge in infectious diseases. Additionally, biodiversity decline impacts our food supply and jeopardizes communities and economies dependent on natural resources, prompting an urgent plea for the World Health Organization to recognize the joint challenges of climate change and ecological damage as a dual global health emergency at the 77th World Health Assembly in 2024. The global health community is further urged to champion biodiversity restoration and proactive climate change measures for the enduring health of our planet.

# POLICY UPDATES: MONTANA CLIMATE LAWSUIT SETS PRECEDENT FOR YOUTH ENVIRONMENTAL RIGHTS

*by Sheng-Pei Wang, MD, MPH and Markus Boos, MD, PhD*

In a ruling on August 14, 2023, Montana District Court Judge Kathy Seeley delivered a [historic decision](#) in the climate lawsuit *Held v. State of Montana* (1-4). The case, brought by 16 young Montanans, alleged that the state's energy policies violated their constitutional right to "a clean and healthful environment." This constitutional right, enshrined in the Montana Constitution since the 1970s, has gained prominence as a potent tool in the fight against climate change. The plaintiffs argued that Montana's laws, which promoted fossil fuel extraction and barred the consideration of climate impacts during environmental reviews, violated their constitutional right to a clean environment. Judge Seeley's ruling in their favor sets a powerful precedent for future climate litigation by invoking "green amendments" present in several state constitutions.

[Green amendments](#), absent in the U.S. Constitution but ratified for decades in state constitutions in Pennsylvania, Montana, Hawaii, Massachusetts and Illinois, recognize citizens' rights to a clean and healthy environment. Early attempts to enforce these rights faced challenges (5). For example, in the 1990s the Illinois Supreme Court concluded that the constitutional right to a clean and healthy environment did not provide a basis for citizens to bring lawsuits against the state, though a pivotal case in Montana in 1999 established the constitutional right to just that. Moreover, in the early 2010s, the Pennsylvania Supreme Court struck down a state law that both allowed the oil and gas industry to conduct hydraulic fracking across



the state and prevented local governments from restricting fracking in their jurisdictions. The aforementioned cases in Montana and Pennsylvania have reignited interest in green amendments and their potential to protect the environment. Judge Seeley's decision was based on extensive scientific evidence presented during the trial, confirming that climate change impacts were occurring in Montana and were linked to the state's existing fossil fuel regulations, laws which the plaintiffs had challenged. The judge also declared that the state law prohibiting consideration of climate impacts during environmental reviews was unconstitutional, emphasizing the importance of green amendments in ensuring that state laws do not ignore greenhouse gas emissions and their climate impact.

While the ruling marked a significant victory for climate activists, it did not grant the judge the power to mandate that the state create a plan to address climate change. Moreover, the plaintiffs proposed a declaration that 350 parts per million of carbon dioxide should be a standard for the

# CONT...POLICY UPDATES: MONTANA CLIMATE LAWSUIT SETS PRECEDENT FOR YOUTH ENVIRONMENTAL RIGHTS

by Sheng-Pei Wang, MD, MPH and Markus Boos, MD, PhD



state to ensure a stable climate system and livable future. However, the judge's order did not go that far. Montana plans to appeal the ruling, and it remains uncertain how this victory will impact federal climate litigation, such as *Juliana v. United States*, where 21 young Americans asserted that the government had violated the youngest generation's constitutional right to life, liberty, and property and failed to protect essential resources in the public's trust by enacting pro-fossil fuel policies. Although not a panacea, the Montana case could still influence climate-related litigation across the country, especially in states with green amendments. For example, in Hawaii, Our Children's Trust, a not-for-profit law firm involved in the Montana case, is engaged in another youth-led climate lawsuit (*Navahine F. v. Hawaii Dept of Transportation*) that will go to trial next summer. Our Children's Trust also has cases pending in Utah, Virginia, and Florida.

Overall, the success in Montana sets the stage for similar cases across states with green amendments (3). It also signifies the potential of courts as viable avenues to reduce climate-related emissions. This ruling reflects the growing use of rights-based approaches to tackle environmental issues and climate change. With an ever-growing body of legal precedent, climate litigation is becoming a powerful tool for addressing greenhouse gas emissions and protecting the rights of future generations.

## References:

1. [newhampshirebulletin.com/2023/08/16/montana-kids-win-historic-climate-lawsuit-heres-why-it-could-set-a-powerful-precedent/](https://newhampshirebulletin.com/2023/08/16/montana-kids-win-historic-climate-lawsuit-heres-why-it-could-set-a-powerful-precedent/)
2. [nytimes.com/2023/08/14/us/montana-youth-climate-ruling.html](https://nytimes.com/2023/08/14/us/montana-youth-climate-ruling.html)
3. [npr.org/2023/08/23/1194710955/montana-youth-climate-ruling-could-set-precedent-for-future-climate-litigation](https://npr.org/2023/08/23/1194710955/montana-youth-climate-ruling-could-set-precedent-for-future-climate-litigation)
4. [theguardian.com/us-news/2023/jun/20/held-v-montana-climate-trial-youth-end](https://theguardian.com/us-news/2023/jun/20/held-v-montana-climate-trial-youth-end)
5. [nclenviro.org/issue/green-amendment/](https://nclenviro.org/issue/green-amendment/)



The youth plaintiffs in *Held vs. Montana*  
Photo Credit: Our Children's Trust

# CLIMATE SENSITIVE DISEASES: MOSQUITO-BORNE ILLNESSES IN THE U.S.

by Eva Rawlings Parker, MD, DTMH and Joshua Kotlyar, MS3



The impact of climate change on emerging infectious diseases is a topic of increasing concern among dermatologists. For vector-borne diseases specifically, urbanization, globalization, migration, and climate impacts, such as planetary warming and altered weather patterns including the increased frequency and severity of storms and amplification of the El Niño Southern Oscillation cycle, all operate synergistically to modify the dynamics between pathogens, vectors, and potential hosts (1-3). In particular, mosquitoes thrive in warm, humid conditions and require standing water for breeding. These favorable conditions are increasingly observed as a result of climate change. Consequently, in historically temperate latitudes, higher temperatures, warmer winters, increased precipitation, and flooding are leading to geographic range expansion of both mosquitoes and the diseases they transmit, in part because warmer temperatures also enhance reproduction and survival, increase biting rates, and accelerate microbe replication within the insect (1,4,5). In the U.S., *Aedes*, *Anopheles*, and *Culex* mosquitoes are considered competent vectors for the pathogens that cause infections such as dengue, chikungunya, Zika, yellow fever, West Nile, St. Louis encephalitis, malaria, and tularemia (1,4,6).

Despite eradication from the continental U.S in the 1950s, locally transmitted cases of *Plasmodium vivax* and *Plasmodium falciparum* malaria were reported in 2023 in Florida, Texas, and Maryland (7). Fortunately, *Anopheles* species in the U.S. are less likely, in

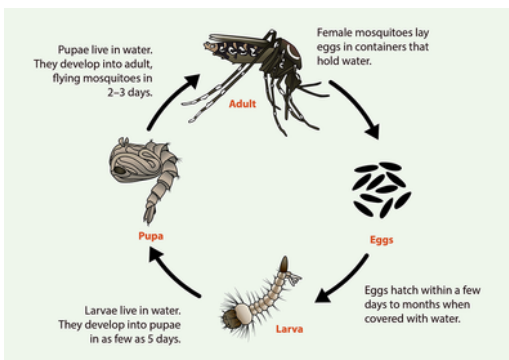
general, to transmit *Plasmodium* parasites compared to their African counterpart, *Anopheles gambiae*. However, *Anopheles* mosquitoes are not routinely monitored and tracked in the U.S. because the risk of malaria has not been a public health concern for many decades. Climate change is now prompting greater concern about the vectorial potential of this mosquito (7).

More alarming is the growing incidence of dengue in the Americas which has steadily increased with >3 million cases reported in this geographic region thus far in 2023 (8,9). While most dengue cases in the continental U.S. are travel-related, as of 2017, the CDC estimated that the presence of *Aedes aegypti* and *Aedes albopictus* is “very likely” as far north as New Jersey and coastal New England, respectively (10). This is salient considering that >580 cases of dengue due to autochthonous (locally-acquired) transmission have been reported in the U.S. as of October 25, 2023, including in Florida, Texas, and the first-ever case in California (11,12). Moreover, current El Niño conditions increase temperatures and precipitation which favor mosquito reproduction and survival (3,8). Prior to 1970, dengue was only found in 9 nations, but it is now endemic in more than 130 countries with 100-400 million cases globally each year and frequent epidemics reported, especially following flooding events (3,5,9). Currently, at least half of the global population is at risk for contracting dengue, a fact that should alarm all of us (5,9). Like dengue, recent years have also seen local transmission of Zika and chikungunya viruses in the Southern U.S., and climate change is prompting experts to question whether yellow fever, also spread by *Aedes* mosquitoes, will re-emerge in the U.S. after more than 100 years (13). Our ability to respond to an arbovirus epidemic such as dengue or yellow fever among a largely immunologically naïve

Life cycle of *Aedes aegypti* and *Aedes albopictus* mosquitoes

Image Credit:

[www.cdc.gov/mosquitoes/about/life-cycles/aedes.html](http://www.cdc.gov/mosquitoes/about/life-cycles/aedes.html)



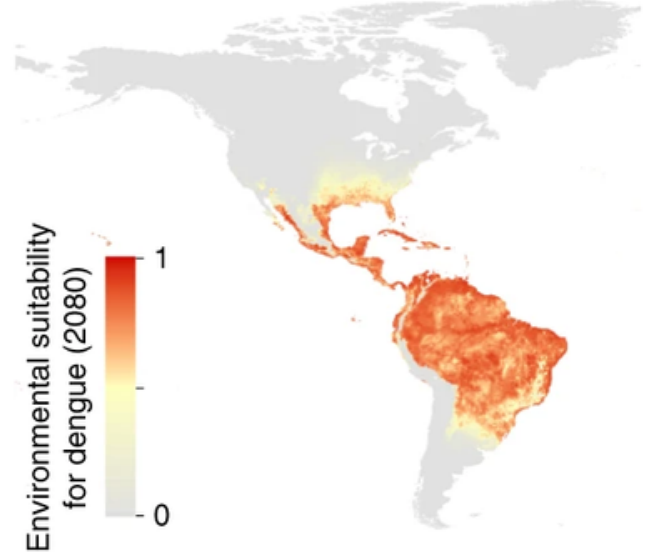
# CONT...CLIMATE SENSITIVE DISEASES: MOSQUITO-BORNE ILLNESSES IN THE U.S.

by Eva Rawlings Parker, MD, DTMH and Joshua Kotlyar, MS3

population in the U.S. remains unclear and not yet an identified priority of the White House Office of Pandemic Preparedness and Response (13).

A mosquito-borne virus that has been well-established in the US since 1999 is West Nile Virus (WNV), transmitted by the *Culex* mosquito (14,15). Since it was first identified, almost 60,000 cases have been documented in the U.S., making WNV the nation's leading mosquito-borne disease. Year to date, 46 states have reported WNV cases in 2023 with 1336 people experiencing neuroinvasive disease (14). Unprecedented outbreaks routinely follow increased precipitation during warm weather (15,16). One such example is the worst recorded outbreak of WNV in a U.S. county which was recorded in 2021 in Maricopa County, AZ, with almost 1500 cases including >1000 hospitalizations and 101 deaths (15,17). The WNV vector index, a measure of infected mosquitoes, reached the highest level ever recorded during this outbreak, which was distinctly preceded by a wetter than average rainy season that year and concurrent with ongoing extreme heat (15,17).

Beyond the bite reactions themselves which dermatologists are accustomed to treating in the outpatient setting, the majority of vector-borne diseases also have cutaneous manifestations. Therefore, in a warmer, wetter world, a keen understanding of the spectrum of skin findings observed in these diseases and a heightened awareness of mosquito transmission patterns is more essential than ever for dermatologists. Counseling patients on proper measures to prevent mosquito bites should be a key component of patient visits during warmer months. This includes application of DEET-containing insect repellants, donning protective clothing treated with permethrin, and use of treated bed nets when camping (18). Additionally, mending gaps/holes in window screens can prevent mosquito entry into living spaces, and eliminating microenvironments where water collects, such as flowerpots and old tires, and covering rain barrels reduce sites where mosquito larvae can thrive (19).



Projected Environmental Suitability and Potential Range Expansion for Dengue in the Americas by 2080. Image Source: Messina, J.P., et al. Nat Microbiol. 2019.

## References:

1. Parker ER, Mo J, Goodman R. The dermatological manifestations of extreme weather events: A comprehensive review of skin disease and vulnerability. *J Clim Change Health*. 2022 (8):100162. doi:10.1016/j.jocl.2022.100162
2. McPhaden M. Has climate change already affected ENSO? Climate.gov Blogs, National Oceanic and Atmospheric Administration. July 27, 2023. <https://www.climate.gov/news-features/blogs/ens0/has-climate-change-already-affected-ens0>
3. Andersen LK, Davis MD. The effects of the El Niño Southern Oscillation on skin and skin-related diseases: a message from the International Society of Dermatology Climate Change Task Force. *Int J Dermatol*. 2015;54(12):1343-1351. doi:10.1111/ijd.12941
4. U.S. Centers for Disease Control and Prevention. About Mosquitoes. 2020. <https://www.cdc.gov/mosquitoes/about/index.html>
5. Murray NE, et al. Epidemiology of dengue: past, present and future prospects. *Clin Epidemiol*. 2013;5:299-309. doi: 10.2147/CLEP.S34440
6. Abdellahoum Z, et al. Tularemia as a Mosquito-Borne Disease. *Microorganisms*. 2020;9(1):26. doi: 10.3390/microorganisms9010026
7. Winnay A. What to Know About Malaria in the U.S. Johns Hopkins Bloomberg School of Public Health. September 5, 2023. <https://publichealth.jhu.edu/2023/malarias-comeback-in-the-us>
8. Lenharo M. Dengue is breaking records in the Americas — What's behind the surge? *Nature*. 2023. doi:10.1038/d41586-023-02423-w
9. Pan-American Health Organization. As dengue cases increase globally, vector control, community engagement key to prevent spread of the disease. August 3, 2023. <https://www.paho.org/en/news/3-8-2023-dengue-cases-increase-globally-vector-control-community-engagement-key-prevent-spread>
10. U.S. Centers for Disease Control and Prevention. Potential Range of *Aedes aegypti* and *Aedes albopictus* in the United States, 2017. <https://www.cdc.gov/mosquitoes/mosquito-control/professionals/range.html>
11. U.S. Centers for Disease Control and Prevention. Dengue: Current Year Data (2023). National Arboviral Surveillance System. October 25, 2023. <https://www.cdc.gov/dengue/statistics-maps/current-data.html>
12. Pasadena Office of the City Manager. Pasadena Reports Extremely Rare Case of Locally-Acquired Dengue: Exposure Risk to Local Residents Remains Very Low. News. October 20, 2023. <https://www.cityofpasadena.net/city-manager/news/pasadena-reports-extremely-rare-case-of-locally-acquired-dengue-exposure-risk-to-local-residents-remains-very-low/>
13. Hotez PJ, LaBeaud AD. Yellow Jack's Potential Return to the American South. *N Engl J Med* 2023;389:1445-7. doi:10.1056/NEJMp23084
14. U.S. Centers for Disease Control and Prevention. West Nile Virus: Data and Statistics. National Arboviral Surveillance System. 2023. <https://www.cdc.gov/westnile/statsmaps/data-and-maps.html>
15. U.S. Department of Health and Human Services. West Nile Virus and Other Mosquito-Borne Diseases. September 8, 2023. <https://www.hhs.gov/climate-change-health-equity-environmental-justice/climate-change-health-equity/climate-health-outlook/west-nile/index.html>
16. Smith-Schoenwalder C. West Nile Virus Cases Increasing in the U.S. U.S. News & World Reports. September 18, 2023. <https://www.usnews.com/news/national-news/articles/2023-09-18/west-nile-virus-cases-increasing-in-the-u-s>
17. Kretschmer M, et al. Unprecedented Outbreak of West Nile Virus - Maricopa County, Arizona, 2021. *Morb Mortal Wkly Rep*. 2023;72(17):452-7. doi:10.15585/mmwr.mm7217a1
18. American Academy of Dermatology. Tips to Prevent and Treat Bug Bites. <https://www.aad.org/public/everyday-care/injured-skin/bites/prevent-treat-bug-bites>
19. My Green Doctor. Resources. <https://mygreendocor.org/resources>

# SUSTAINABILITY AND PRACTICE MANAGEMENT: JOINT COMMISSION RELEASES SUSTAINABLE HEALTHCARE CERTIFICATION

*by Divya Sharma, MD and Paige Wolstencroft, MD*

Efforts to decarbonize the healthcare sector and enhance sustainability practices are more crucial now than ever. Recent announcements from the Joint Commission, an independent, not-for-profit organization that provides accreditation for numerous healthcare entities within the United States, signify major strides in supporting these efforts. On September 18, 2023, the Joint Commission introduced a [Sustainable Healthcare Certification](#), which hospitals nationwide can voluntarily pursue (1).

The Sustainable Healthcare Certification is structured so that, irrespective of their starting level, healthcare organizations can systematically work to further reduce their greenhouse gas emissions. It aims to assist organizations in developing or advancing their decarbonization efforts as well as receive recognition for their success in sustainability. The specific criteria to obtain the Sustainable Healthcare Certification can be accessed on the [Joint Commission website](#). Through this certification, the Joint Commission highlights the importance of sustainability by emphasizing the many co-benefits including potential for cost-savings, environmental impact reduction, improved health outcomes, risk mitigation, regulatory compliance, and enhanced community engagement and reputation.

To guide organizations on their path to reduce greenhouse gas emissions and enhance sustainability, the Joint Commission has established a comprehensive [Resource Center](#) with strategies, tools, and tips to become more sustainable (2). Additionally, they are developing a platform to spotlight leading organizations in the sustainability space, along with examples of cost-savings resulting from the implementation of sustainability practices.



There is a historical precedent for certifications by the Joint Commission to have a meaningful impact on clinical outcomes. For instance, a study on Joint Commission - Primary Stroke Center Certification found hospitals with this certification experienced lower adjusted mortality rates compared to non-certified hospitals (3). Therefore, evidence suggests that the creation of the Sustainable Healthcare Certificate will positively influence greenhouse gas reductions in healthcare settings.

In summary, the new Sustainability Healthcare Certification created by the Joint Commission represents a significant step forward in encouraging healthcare institutions to adopt climate and environment-friendly practices. An authority on quality and patient safety such as the Joint Commission advocating for the environment may positively influence practice design and attitudes towards sustainability across diverse practice settings – from large institutions to small private practices within dermatology and beyond.

#### References:

- [1. jointcommission.org/what-we-offer/certification/certifications-by-setting/hospital-certifications/sustainable-healthcare-certification/](https://www.jointcommission.org/what-we-offer/certification/certifications-by-setting/hospital-certifications/sustainable-healthcare-certification/)
- [2. jointcommission.org/our-priorities/sustainable-healthcare/sustainable-healthcare-resource-center/](https://www.jointcommission.org/our-priorities/sustainable-healthcare/sustainable-healthcare-resource-center/)
- Lichtman JH, et al. 30-day mortality and readmission after hemorrhagic stroke among Medicare beneficiaries in Joint Commission primary stroke center-certified and noncertified hospitals. *Stroke*. 2011 Dec;42(12):3387-91. doi: 10.1161/STROKEAHA.111.622613.



## RESOURCES FOR GREENING YOUR PRACTICE

by *Eva Rawlings Parker, MD, DTMH* and *Rachel Goodman, MBA, MS4*

### 10 Simple Tips for a Greener Office



Sharma, D, Murase LC, Murase JE, Rosenbach M. **Combatting Climate Change: 10 Interventions for Dermatologists to Consider for Sustainability.** *Cutis.* 2022;110(2):59-62. [doi:10.12788/cutis.0577](https://doi.org/10.12788/cutis.0577)

- Consider switching to renewable sources of energy
- Reduce standby power consumption
- Optimize thermostat settings
- Offer bicycle racks and charging ports for electric vehicles
- Ensure properly regulated medical waste management
- Consider virtual platforms when possible
- Limit use of single-use disposable items
- Educate on the effects of climate change
- Install water-efficient toilets and faucets
- Advocate through local and national organizations

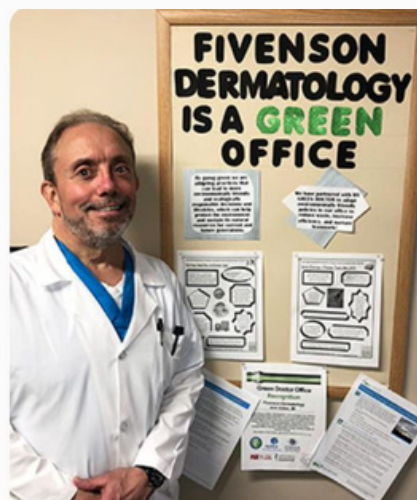
### Recent Sustainability Articles

- Wolstencroft PW, et al. Development of a Framework for Addressing Skin Biopsy Tray Waste in Dermatology Clinics: A Quality Improvement Study. *JAMA Dermatol.* 2023;159(5):541-4. [doi:10.1001/jamadermatol.2023.0511](https://doi.org/10.1001/jamadermatol.2023.0511)
- Niebel D, et al. Sustainability of dermatological offices and clinics: challenges and potential solutions. *J Dtsch Dermatol Ges.* 2023;21(1), 44-58. [doi:10.1111/ddg.14952](https://doi.org/10.1111/ddg.14952)
- Heuer R, Nast A. Sustainable prescribing behavior and implementation in guidelines. *Dermatologie (Heidelb).* 2023;74:34-40. [doi:10.1007/s00105-022-05083-5](https://doi.org/10.1007/s00105-022-05083-5)
- Tan E. Sustainable dermatology-A practical guide for the Australian dermatologist. *Australas J Dermatol.* 2023;00:1-10. [doi:10.1111/ajd.14178](https://doi.org/10.1111/ajd.14178)

### New Funding for Solar Panels



A provision under the 2022 U.S. Inflation Reduction Act affords an opportunity for AAD members that should not be missed! If your home or a business has an unshaded roof, now is the time to install solar panels and claim a \$7500 credit on your 2023 tax return. The savings on electricity costs will pay for the panels in eight years and give you free power for another twenty. Solar panels are a green win-win for both your pocketbook and the planet, saving you money and reducing greenhouse gas emissions for a healthier community. Learn more at [My Green Doctor](https://www.mygreendoctor.org), a free membership benefit of the American Academy of Dermatology.



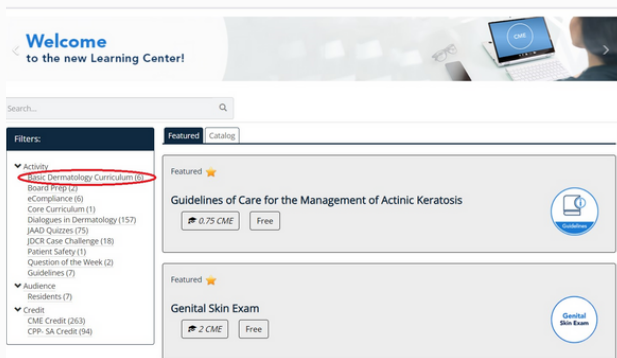
# ERG HAPPENINGS

by Ning McKenzie, MS3 and Eva Rawlings Parker, MD, DTMH

## NEW CLIMATE MODULES NOW AVAILABLE THROUGH THE AAD'S LEARNING CENTER

The new **Climate Change and Cutaneous Diseases** curriculum is now available from the [AAD Learning Center](#) and consists of 4 modules containing 15 clinical cases related to climate impacts on the skin. Login to access the modules, then click on **Basic Dermatology Curriculum** from the menu on the left. On the next screen, select the blue **Start/Continue** button under **Basic Dermatology Curriculum (All Modules)**. Navigate to the module tile called **Climate Change and Cutaneous Diseases** to get started.

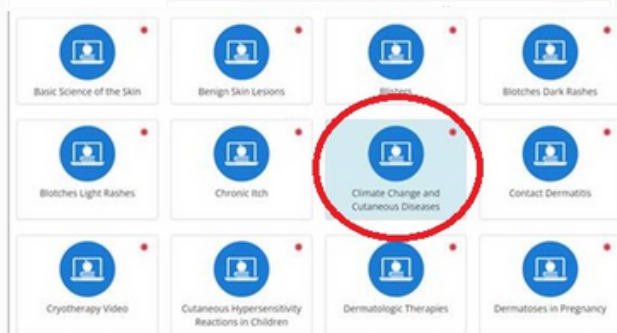
Step 1



Step 2

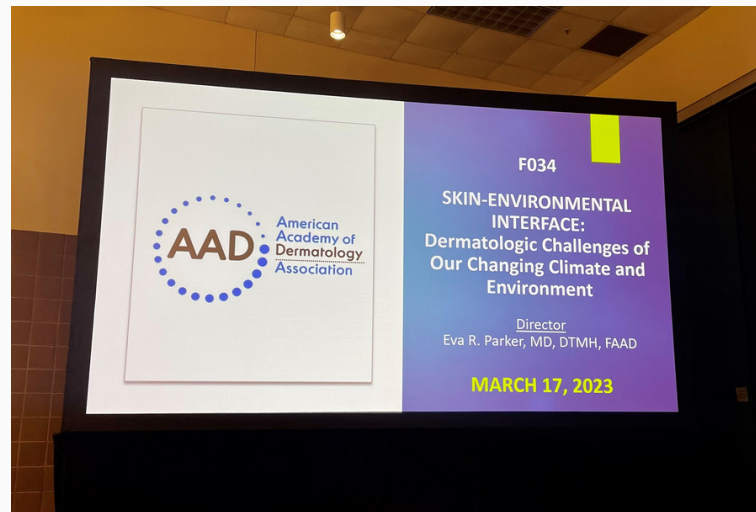


Step 3



## CLIMATE CHANGE AND DERMATOLOGY FEATURED IN THE MEDIA

Our ERG Members continue to be in demand for climate-related interviews and features by media outlets and podcast producers. Check out these interviews:



The Scientific Forum, Skin-environmental Interface: Dermatologic Challenges of Our Changing Climate and Environment, at the AAD's 2023 Annual Meeting in New Orleans once again received notable media attention from [PR News Wire](#), [AJMC](#), [Managed Healthcare Executive](#), and [JCAD TV](#).

In March, Dr. Eva Parker discussed [the Nexus of Climate Change, Atopic Dermatitis, and Mental Health](#) in a video interview with AJMC.

Dr. Misha Rosenbach was interviewed by [Heatmap](#) for an article entitled "Dermatologists Have Bad News to Share About Climate Change: Your climate disaster zone is ruining your skin."

# ERG HAPPENINGS AND CONFERENCE COVERAGE

by *Ning McKenzie, MS3* and *Eva Rawlings Parker, MD, DTMH*

## CONTINUED...CLIMATE CHANGE AND DERMATOLOGY FEATURED IN THE MEDIA

The [EMJ Podcast](#) invited Dr. Eva Parker to be a guest to discuss "Navigating Dermatological Challenges in a Changing Climate."

In July, [UW Medicine News Room](#) featured Dr. Markus Boos in "More than skin in the game: A pediatric dermatologist sees global warming's effects in his patients."

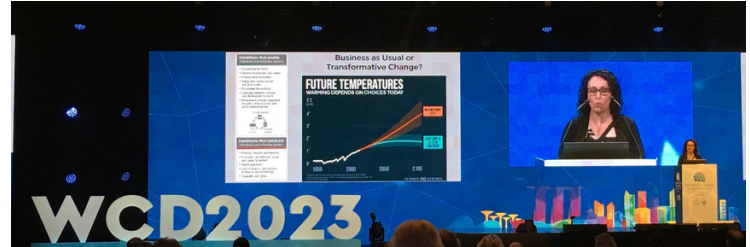
July 11, 2023

### More than skin in the game

Q&A: A pediatric dermatologist sees global warming's effects in his patients: "Everyone is affected, but not equally."



Dr. Eva Parker was interviewed by [Medical Daily](#) for a July 2023 article on "How Extreme Heat Affects People with Underlying Health Conditions: Tips To Protect Yourself" and by [Popular Science](#) about "Why the rare skin cancer that killed Jimmy Buffett may become more common: There's growing evidence that global warming's heat and influence over UV light contributes to skin cancer diagnoses."



## CLIMATE CHANGE & SUSTAINABILITY PLAYING LARGER ROLES IN CONFERENCES IN 2023

[The 25th World Congress of Dermatology](#) (WCD2023)

was held in July in Singapore and notably featured many climate-related talks, including in high-profile Plenary and Hot Topics sessions. Speakers discussing climate change impacts in dermatology included Prof. Harald Lesch, Dr. Eva Parker, Dr. Mark Davis, Dr. Sarah Coates, and Mr. Alberto Barea.



As an organization, [WCD2023](#) demonstrated a deep commitment to sustainability, setting a new bar for dermatology conferences. Informed by the UN's Sustainable Development Goals and the Singapore Green Plan 2030, the WCD2023 planning committee implemented a comprehensive [Green Policy](#) that incorporated waste reduction, water and energy use conservation, and improved recycling diversion strategies. For attendees, most of the experience was digitized to reduce paper and plastic waste, and all attendees received an MRT card for use on public transportation.

# CONTINUED...CONFERENCE COVERAGE

by *Ning McKenzie, MS3* and *Eva Rawlings Parker, MD, DTMH*



[Green Nudges](#) were also provided as simple and easy steps to further reduce one's individual environmental impact while attending the meeting. Moreover, WCD2023 fundraised to support greening endeavors in Singapore by partnering with the [One Million Trees](#) movement and the [Garden City Fund](#) and engaged pharma, exhibitors, and sponsors with a [Green Challenge](#). Overall, the meeting's concerted efforts to promote sustainability and reduce the conference's carbon footprint made WCD2023 a shining example of responsible event management.



The upcoming [14th International Conference on Skin Ageing & Challenges](#) in Lisbon, Portugal on November 9-10, 2023 will open with a 3-hour morning session dedicated to Climate Change & the Environment: Consequences for Skin Health, co-chaired by Prof. Jean Krutmann and Dr. Eva Parker. Speakers discussed the impacts of climate change on skin health and infectious diseases as well as the effects of temperature and pollution on skin aging



The [32nd European Academy of Dermatology and Venereology Congress](#) convened in October in Berlin, Germany. Like WCD2023, this meeting also made [sustainability](#) an intentional choice and prominently highlighted climate change in its [Scientific Programme](#). The Keynote Lectures during the Opening Ceremony were delivered by Prof. Bernd Scherer who discussed "The Anthropocene: A New Earth Epoch," and Prof. Diarmid Campbell-Lendrum who spoke on "Why Health Professionals Should Care About Climate Change - and What They Should Do," while Dr. Misha Rosenbach, ERG Co-Chair, discussed The impact of Climate Change on the Skin during The Best of American and European Dermatology session.

# CONFERENCE COVERAGE AND UPCOMING LEARNING OPPORTUNITIES

by Ning McKenzie, MS3 and Eva Rawlings Parker, MD, DTMH

## CONTINUED...CLIMATE CHANGE & SUSTAINABILITY PLAYING LARGER ROLES IN CONFERENCES IN 2023



[Climate & Health 2023](#) held its inaugural hybrid international meeting in October at Hofstra University in New York. With a global attendance, speakers from across the spectrum of medicine participated including virtual talks delivered from India, Bangladesh, Canada, and the UK. The Keynote Addresses featured Indigenous and youth leaders who are tackling justice and equity, while the impressive list of speakers and moderators included those representing Harvard C-CHANGE, Yale Center on Climate Change and Health, Mass General Hospital Center for the Environment and Health, George Mason University Center for Climate Change Communication, London School of Hygiene and Tropical Medicine, Medical Society Consortium on Climate and Health, Global Consortium on Climate and Health Education, Journal of Climate Change and Health, Medical Students for a Sustainable Future, Planetary Health Report Card, among many others. The speakers covered specialty-specific impacts, climate-health education, sustainability in healthcare, disparities, and effective communication of the clinical relevance of climate change. Dr. Eva Parker, ERG Co-Chair, served on the planning committee for the meeting and participated in a panel on Innovation and Ethics in Healthcare.

## UPCOMING CLIMATE MEETINGS AND WEBINARS

### [Fossil Fuel Pollution and Climate Change](#) (Virtual)

The New England Journal of Medicine

Thursday, November 16, 2023 | 12:00 – 1:30 PM EST

### [Decarbonization in Health Care, Part 2: Focusing on Infrastructure](#) (Virtual)

University of California, Center for Climate, Health and Equity

Wednesday, December 20, 2023 | 12:00 – 1:00 PM PST

### [COP28](#) (Dubai)

United Nations Climate Change Conference

November 30 - December 12, 2023

### [Medical Society Consortium on Climate and Health 2024 Annual Meeting: From the Clinic to the Capitol](#)

(Hybrid)

February 11-13, 2024



# GET INVOLVED & STAY INFORMED

We have launched an ERG website:

[www.climatedermatology.com](http://www.climatedermatology.com) which includes archived editions of our Newsletter. Stay tuned as we build out more content.

***Do you have an idea for the Newsletter or want to write an article?*** Great! We welcome your contributions. Please submit your idea [here](#).

We also have multiple opportunities for medical students, residents, fellows, and practicing dermatologists to roll up your sleeves and engage in meaningful work with our ERG's Committees including Communication & Education, Outreach & Policy, and Innovations & Initiatives. Contact us at [climatedermatology@gmail.com](mailto:climatedermatology@gmail.com) if you would like to volunteer or join our ERG's mailing list.



## ***ERG Leadership***

Misha Rosenbach, MD - ERG Co-Chair

Eva Rawlings Parker, MD, DTMH - ERG Co-Chair

Tim McCalmont, MD - ERG Secretary/Treasurer

Mary Maloney, MD - AAD Representative to MSCCH

Mary Williams, MD - Immediate-Past ERG Co-Chair

Divya Sharma, MD - Assistant to the ERG

## ***ERG Newsletter Staff***

Editor - Eva Rawlings Parker, MD, DTMH

Student Editor - Rachel Goodman, MBA, MS4

Contributors - Markus Boos, MD, PhD

Sheng-Pei Wang, MD, PhD

Divya Sharma, MD

Paige Wolestencroft, MD

Jordan Bui, MS3

Joshua Kotlyar, MS3

Ning McKenzie, MS3



*Disclaimer: The opinions expressed in this newsletter and the presentation of material therein are solely those of the authors. This newsletter is not a sanctioned publication of the American Academy of Dermatology, and the authors do not purport to represent or reflect the opinions, views, or policies of the American Academy of Dermatology or its members.*