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WEBINAR:
Reviews journals: A vital library resource for students, faculty and researchers

Jillian Adie & Mina Razzak

2 April 2020

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Reviews journals:
A vital library resource for students, faculty and researchers

Your researchers have an increasing focus and responsibility to contribute towards solving the world's most pressing challenges. Some research fields are huge, so how do your students know what is the most important and relevant content to their disciplines? How can experienced researchers follow key trends and discoveries? Reviews journals are a unique resource and teaching tool provided by libraries and used by students and faculty members alike to help accelerate learning, and make original research more accessible.

This 1-hour webinar with Jill Adie, Senior Publishing Manager and Mina Razzak, Editorial Director Nature Reviews at Nature Research will explore how these journals play an increasing role in collaborative approaches across scientific publishing as well as discussing developments and 'real-life' impact.

Today's Speakers

Dr. Jillian Adie

Senior Publishing Manager

Nature Research, Springer Nature

Jill Adie is a Senior Publishing Manager at Nature Research, based in London. She has a PhD in structural biology and BSc in pharmacology from the University of Edinburgh, and previously worked as a Science Communication Product Manager at Springer Nature. Jill has 9 years of experience working in STEM publishing, and currently manages the Nature Reviews portfolio of journals and new Nature launches. She works closely with editorial, production, sales and marketing teams, to ensure the Nature Reviews titles provide best-in-class service for authors and readers.

Dr. Mina Razzak

Editorial Director Research Reviews

Nature Research, Springer Nature

Mina Razzak is the Editorial Director of the Nature Reviews portfolio of journals. Following her degree in biomedical science from Victoria University of Wellington, NZ, Mina received her PhD in organic chemistry from the University of Cambridge, UK. After a postdoctoral research position at UT Southwestern Medical Center at Dallas, Texas, USA, she returned to the UK and joined Nature Research. Since then, Mina has worked in the editorial teams of several Reviews journals, and was the launch editor of Nature Reviews Disease Primers, a role she held for 5 years. As Editorial Director, she oversees the editorial operations of the Nature Reviews titles.

Poll Question 1

Where are you joining us from today?

Agenda

1	What are Nature Reviews journals?
2	Making original research more accessible and accelerating learning
3	Collaborative approaches across scientific publishing

Poll Question 2

Are you familiar with the differences between Nature Research journals and Nature Reviews journals?

What are the Nature Reviews journals?

Differences between Research and Reviews journals

Nature Research Journals

- Present the most up-to-date and innovative research
- Research of the highest quality & impact
- Submitted by authors directly
- Audience are active researchers

Nature Reviews Journals

- Synthesize original research to create a overview
- Great teaching tool that makes original research more accessible
- Filter & highlight the latest research
- Commissioned by the editorial team
- Enhanced with supporting figures
- Audience are researchers and students

All editorial decisions are made by a team of full-time professional editors

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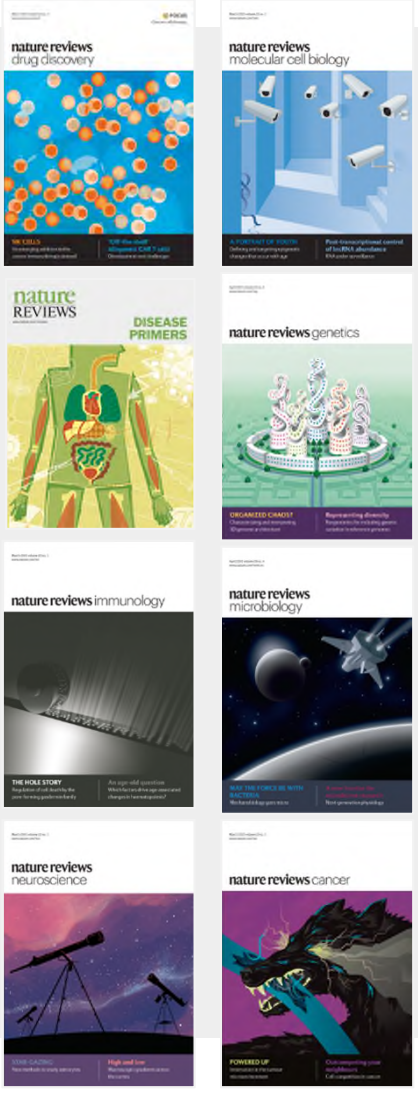
The Nature Reviews journals at a glance

Clinical Sciences

Life Sciences

2015



Physical Sciences

(Launch dates)

All Nature journals have in-house professional editors

Manuscript editors

Magazine editors

Editorial administration

Copy editors

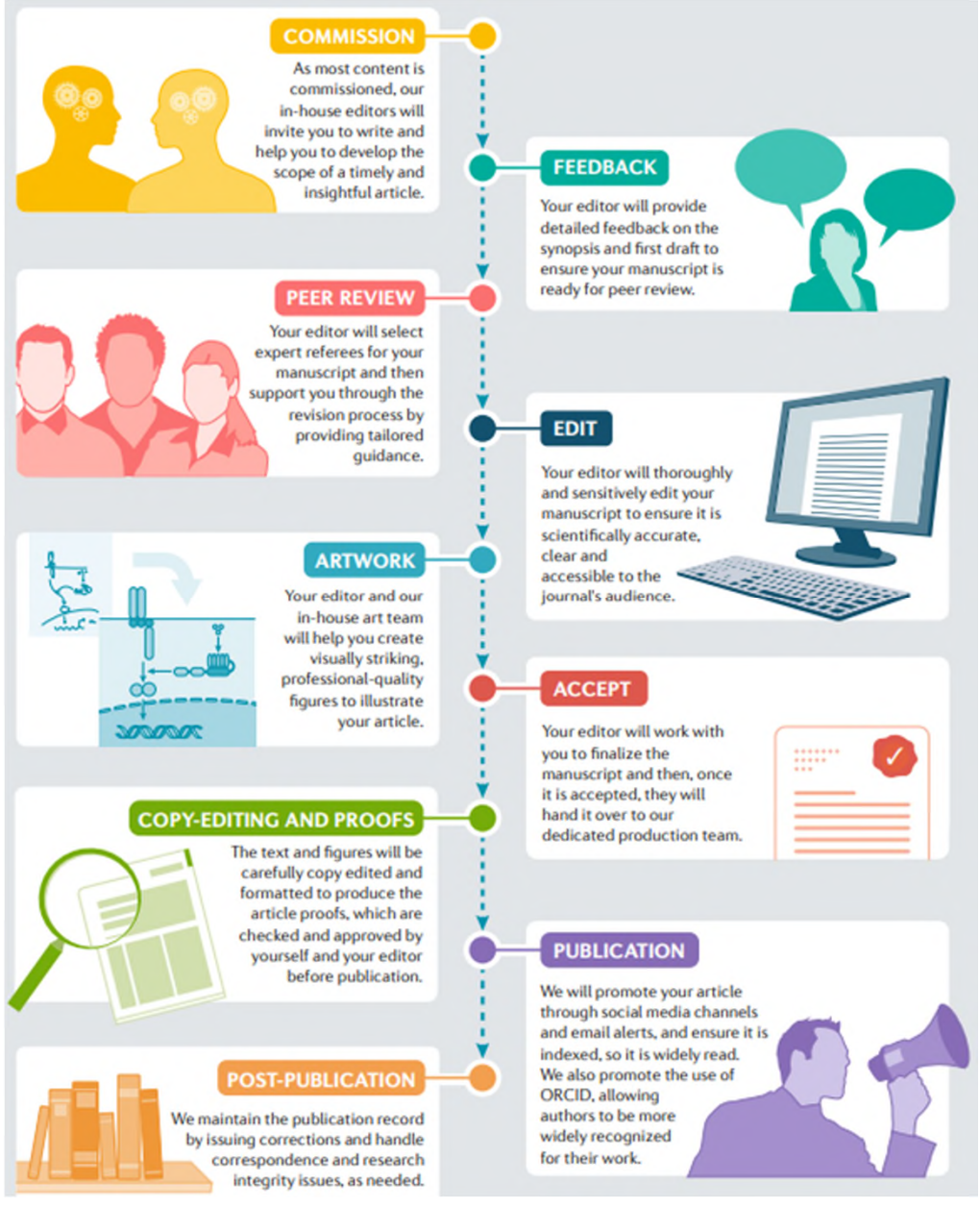
Art editors

Production editors

Our publishing process

A team of approximately 110 staff work hard to create the high-quality, accessible review articles published in the Nature Reviews journals each month

There are several steps in our publishing workflows that are unique to the Nature Reviews journals



https://www.nature.com/documents/writing-for-nature-reviews.pdf

Review articles in Nature Reviews

- Review articles are a great way for researchers and students to stay up to date and navigate the constant flood of information from research papers, and useful for those who want to learn more about a new field.
- Our reviews are:
  - **Authoritative**
  - **Balanced and reliable**
  - **Accessible**
  - **Excellent teaching tools**

Reviews as a teaching tool

1. Glossary

Healthy eating index
(HEI). An a priori diet quality score based on adherence to the US Dietary Guidelines.

Alternate HEI
(aHEI). An a priori diet quality score based on overall chronic disease prevention guidelines.

Dietary Approaches to Stop Hypertension
(DASH). An a priori dietary pattern based on the dietary recommendations employed in the DASH randomized controlled trial, which demonstrated a significant effect of the diet intervention on blood pressure.


REVIEWS

Dietary patterns and cancer risk

Susan E. Steck* and E. Angela Murphy

Abstract | Over the past decade, the search for dietary factors on which to base cancer prevention guidelines has led to the rapid expansion of the field of dietary patterns and cancer. Multiple systematic reviews and meta-analyses have reported epidemiological associations between specific cancer types and both data-driven dietary patterns determined by empirical analyses and investigator-defined dietary indexes based on a predetermined set of dietary components. New developments, such as the use of metabolomics to identify objective biomarkers of dietary patterns and novel statistical techniques, could provide further insights into the links between diet and cancer risk. Although animal models of dietary patterns are limited, progress in this area could identify the potential mechanisms underlying the disease-specific associations observed in epidemiological studies. In this Review, we summarize the current state of the field, provide a critical appraisal of new developments and identify priority areas for future research. An underlying theme that emerges is that the effectiveness of different dietary pattern recommendations in reducing risk could depend on the type of cancer or on other risk factors such as family history, sex, age and other lifestyle factors or comorbidities as well as on metabolomic signatures or gut microbiota profiles.

Diet is an established risk factor for multiple types of cancer[1]. Indeed, the study of individual nutrients or phytochemicals has revealed associations between certain dietary factors and cancer risk. However, individual dietary constituents are intercorrelated and interact with each other to influence disease risk. By contrast, examination of the diet as a whole, as is done in dietary patterns research, could yield stronger effect estimates and results that can be more readily translated into dietary guidelines[2–4]. The popularity of dietary patterns research is reflected in the inclusion of dietary patterns in the latest reports, such as the 2018 World Cancer Research Fund/American Institute for Cancer Research (WCRF/AICR) Third Expert Report[1] and the 2015 Dietary guidelines for Americans (DGAs)[5]. The 2018 WCRF/AICR Third Expert Report examined the evidence for the American Cancer Society cancer prevention guidelines score, healthy eating index (HEI)-2005, alternative Mediterranean diet (aMED) score, and the WCRF/AICR cancer prevention guidelines in relation to 15 types of cancer. The report concluded that the evidence was too scarce to draw conclusions for all cancer types, except for cancers of the mouth, pharynx and larynx, for which there was limited evidence (defined as "evidence that is too limited to permit a probable or convincing causal judgment but is suggestive of a direction of effect") for a decreased risk with greater adherence to the four dietary and/or lifestyle patterns[1]. Given these conclusions and the rapid expansion of the field of dietary patterns and cancer risk, a review of the literature is particularly timely and is needed to identify areas of focus for future research.

In the early years of dietary patterns research, few substantial associations with cancer were observed in epidemiological studies[6]. In particular, the HEI, which is designed to reflect the DGAs, was not associated with cancer risk in early studies based on the 1995 DGAs[6]. However, with the evolution of the DGAs and the subsequent inclusion of more specific guidance in the HEI (for example, on different types of fat)[7,8], stronger epidemiological associations have been observed with, for example, cancer mortality[9,10]. Multiple other dietary patterns and indexes have been developed to reflect the dietary guidelines of other countries or organizations (for example, the World Health Organization (WHO) healthy diet indicator, the new Nordic diet and the Chinese food pagoda) or to focus specifically on chronic disease prevention guidelines (for example, the alternate HEI (aHEI) and the Dietary Approaches to Stop Hypertension (DASH))[11–13]. Other dietary pattern scores are focused on cultural ways of eating that are believed to be healthy (for example, the Mediterranean diet and vegetarian or vegan diets) or on biological markers or processes that are known to be involved in carcinogenesis (for example, scores related to dietary inflammatory potential[14,15], oxidative balance[16], estrogen metabolism[17,18] and hyperinsulinaemia or glycaemic index[19]).

In this Review, we summarize the epidemiology literature on dietary patterns and cancer risk by focusing mainly on systematic reviews and meta-analyses

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https://doi.org/10.1038/s41568-019-0227-4

2. Reading companion

Associated Content

Series

Diet and systemic metabolism

Sections | Figures | References

- Abstract
- Introduction
- Overview of dietary pattern analysis
- A posteriori dietary patterns
- A priori dietary patterns
- Patterns based on biological markers
- Emerging developments

3. Discovery tools

Subjects

Cancer epidemiolog

Lifestyle modificati

Associated Content

Series

Diet and systemic metabolism

Nature Reviews Cancer **volume 20**, p125–138 (2020)

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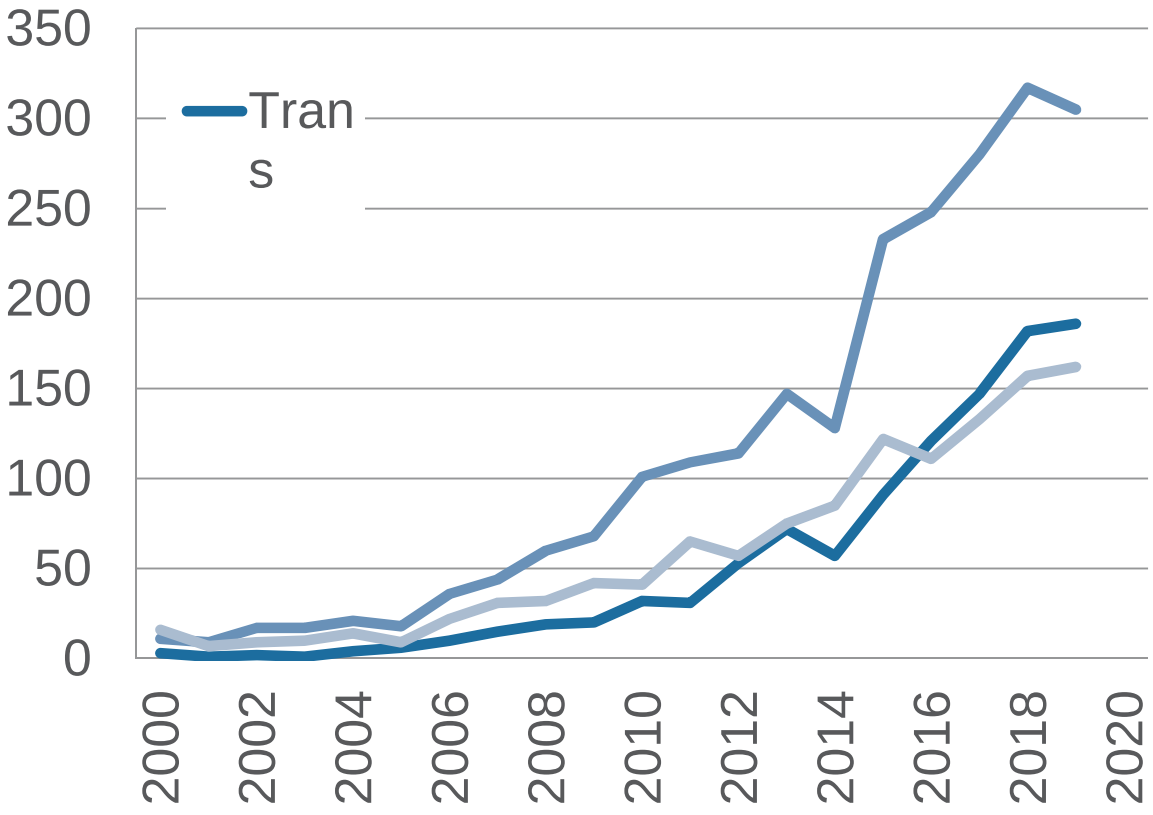
Collaborative approaches across scientific publishing

Research is evolving and becoming more collaborative



- This also means it is becoming more complex, involving many more disciplines
- This is particularly true for research related to the UN's sustainable development goals, which, in order to have the biggest impact, needs to pull together multiple disciplines to provide a holistic perspective and real-world impact in order to be useful for policy influencers

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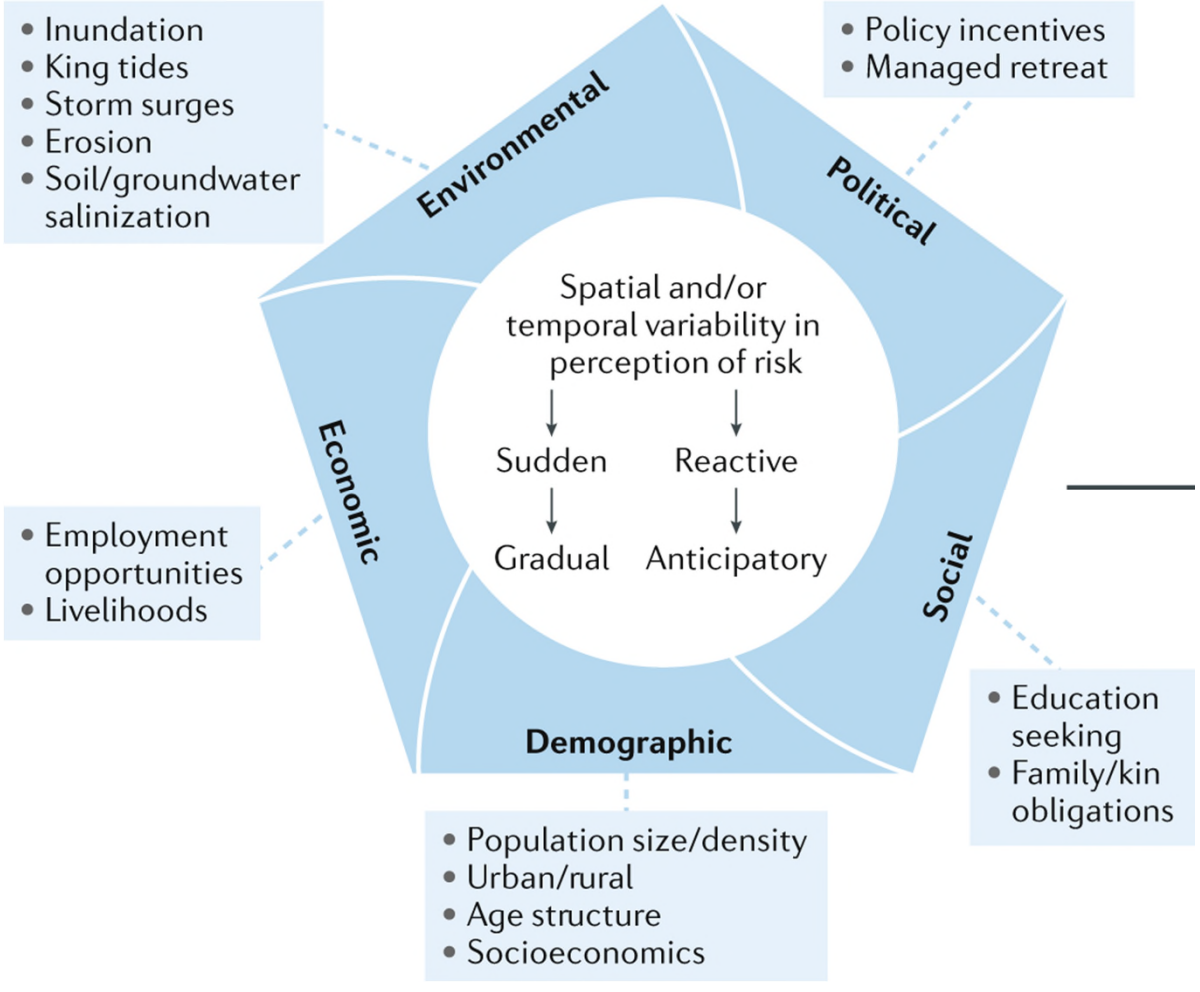
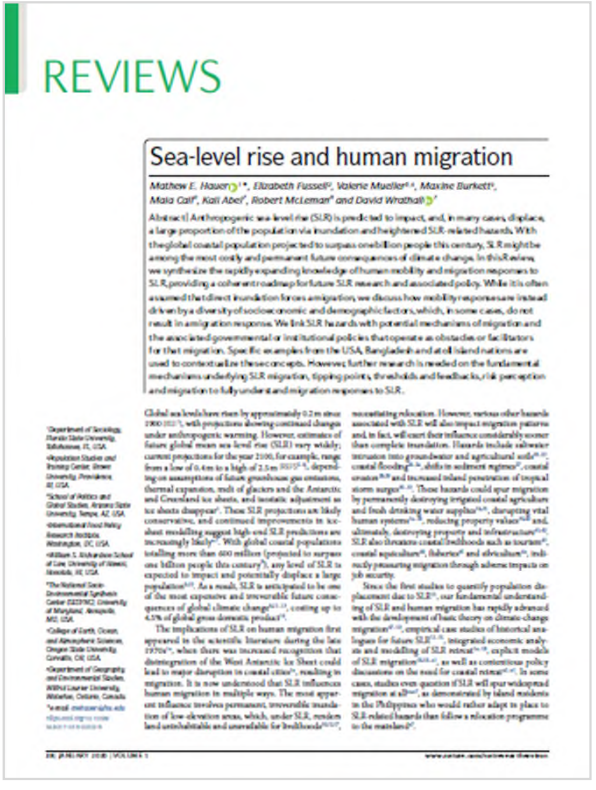
Adapted from *Sustainability* **2011**, *3*(8), 1090-1113; https://doi.org/10.3390/su3081090

Nature Reviews Earth & Environment

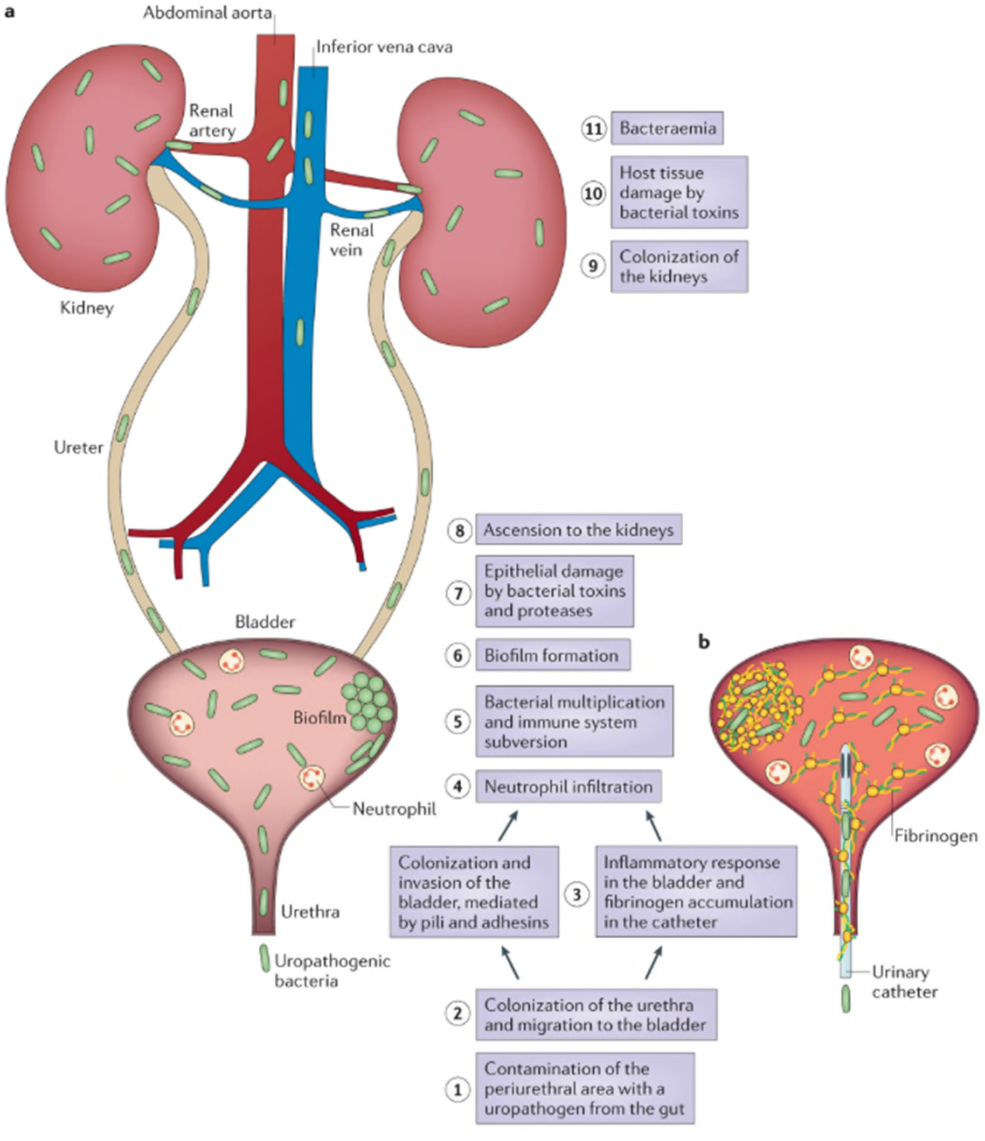


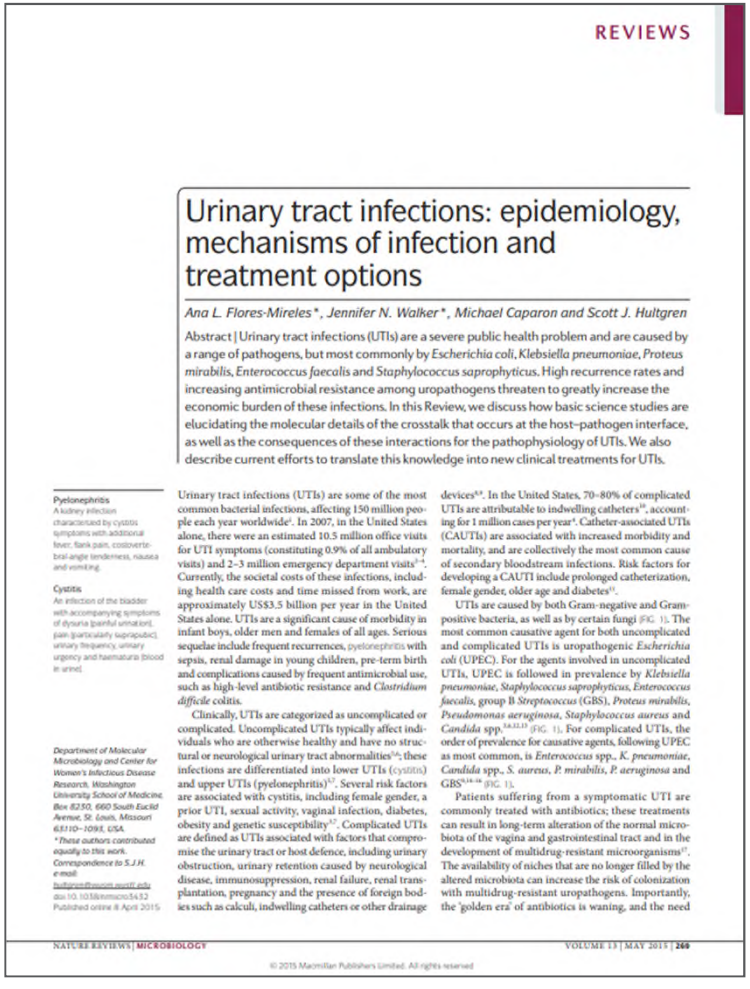

REVIEWS

Sea-level rise and human migration

Nat Rev Earth Environ **1,** 28–39 (2020). https://doi.org/10.1038/s43017-019-0002-9

Nature Reviews Microbiology





REVIEWS

Urinary tract infections: epidemiology, mechanisms of infection and treatment options

Ana L. Flores-Mireles, Jennifer N. Walker*, Michael Caparon and Scott J. Hultgren*

Abstract | Urinary tract infections (UTIs) are a severe public health problem and are caused by a range of pathogens, but most commonly by *Escherichia coli*, *Klebsiella pneumoniae*, *Proteus mirabilis*, *Enterococcus faecalis* and *Staphylococcus saprophyticus*. High recurrence rates and increasing antimicrobial resistance among uropathogens threaten to greatly increase the economic burden of these infections. In this Review, we discuss how basic science studies are elucidating the molecular details of the crosstalk that occurs at the host–pathogen interface, as well as the consequences of these interactions for the pathophysiology of UTIs. We also describe current efforts to translate this knowledge into new clinical treatments for UTIs.

Pyelonephritis
A kidney infection characterized by cystitis symptoms with additional fever, flank pain, costovertebral-angle tenderness, nausea and vomiting.

Cystitis
An infection of the bladder with accompanying symptoms of dysuria (painful urination), pain (particularly suprapubic), urinary frequency, urinary urgency and haematuria (blood in urine).

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doi:10.1038/nrmicro3432
Published online 8 April 2015

Urinary tract infections (UTIs) are some of the most common bacterial infections, affecting 150 million people each year worldwide[1]. In 2007, in the United States alone, there were an estimated 10.5 million office visits for UTI symptoms (constituting 0.9% of all ambulatory visits) and 2–3 million emergency department visits[2–4]. Currently, the societal costs of these infections, including health care costs and time missed from work, are approximately US$3.5 billion per year in the United States alone. UTIs are a significant cause of morbidity in infant boys, older men and females of all ages. Serious sequelae include frequent recurrences, pyelonephritis with sepsis, renal damage in young children, pre-term birth and complications caused by frequent antimicrobial use, such as high-level antibiotic resistance and *Clostridium difficile* colitis.

Clinically, UTIs are categorized as uncomplicated or complicated. Uncomplicated UTIs typically affect individuals who are otherwise healthy and have no structural or neurological urinary tract abnormalities[5,6]; these infections are differentiated into lower UTIs (cystitis) and upper UTIs (pyelonephritis)[5,7]. Several risk factors are associated with cystitis, including female gender, a prior UTI, sexual activity, vaginal infection, diabetes, obesity and genetic susceptibility[5,7]. Complicated UTIs are defined as UTIs associated with factors that compromise the urinary tract or host defence, including urinary obstruction, urinary retention caused by neurological disease, immunosuppression, renal failure, renal transplantation, pregnancy and the presence of foreign bodies such as calculi, indwelling catheters or other drainage devices[8,9]. In the United States, 70–80% of complicated UTIs are attributable to indwelling catheters[10], accounting for 1 million cases per year[4]. Catheter-associated UTIs (CAUTIs) are associated with increased morbidity and mortality, and are collectively the most common cause of secondary bloodstream infections. Risk factors for developing a CAUTI include prolonged catheterization, female gender, older age and diabetes[11].

UTIs are caused by both Gram-negative and Gram-positive bacteria, as well as by certain fungi (FIG. 1). The most common causative agent for both uncomplicated and complicated UTIs is uropathogenic *Escherichia coli* (UPEC). For the agents involved in uncomplicated UTIs, UPEC is followed in prevalence by *Klebsiella pneumoniae*, *Staphylococcus saprophyticus*, *Enterococcus faecalis*, group B *Streptococcus* (GBS), *Proteus mirabilis*, *Pseudomonas aeruginosa*, *Staphylococcus aureus* and *Candida* spp.[5,12,13] (FIG. 1). For complicated UTIs, the order of prevalence for causative agents, following UPEC as most common, is *Enterococcus* spp., *K. pneumoniae*, *Candida* spp., *S. aureus*, *P. mirabilis*, *P. aeruginosa* and GBS[5,14–16] (FIG. 1).

Patients suffering from a symptomatic UTI are commonly treated with antibiotics; these treatments can result in long-term alteration of the normal microbiota of the vagina and gastrointestinal tract and in the development of multidrug-resistant microorganisms[17]. The availability of niches that are no longer filled by the altered microbiota can increase the risk of colonization with multidrug-resistant uropathogens. Importantly, the 'golden era' of antibiotics is waning, and the need

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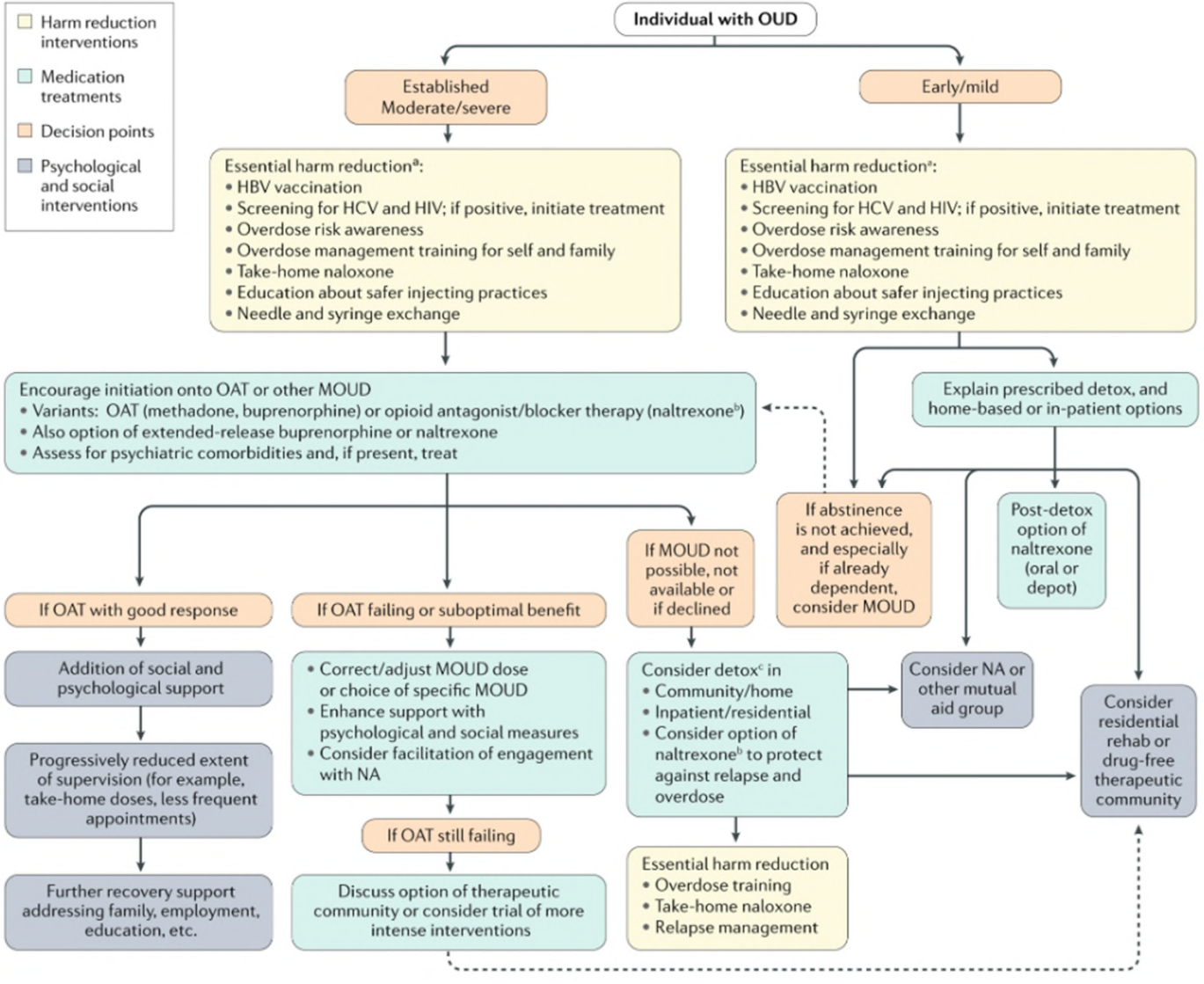
Nat Rev Microbiol **13,** 269–284 (2015). https://doi.org/10.1038/nrmicro3432

Nature Reviews Disease Primers




PRIMER

Opioid use disorder

John Strang[1,2]*, Nora D. Volkow[3]*, Louisa Degenhardt[4], Matthew Hickman[5], Kimberly Johnson[6], George F. Koob[7], Brandon D. L. Marshall[8], Mark Tyndall[9] and Sharon L. Walsh[10]

Abstract | Opioid use disorder (OUD) is a chronic relapsing disorder that, whilst initially driven by activation of brain reward neurocircuits, increasingly engages anti-reward neurocircuits that drive adverse emotional states and relapse. However, successful recovery is possible with appropriate treatment, although with a persisting propensity to relapse. The individual and public health burdens of OUD are immense; 26.8 million people were estimated to be living with OUD globally in 2016, with >100,000 opioid overdose deaths annually, including >47,000 in the USA in 2017. Well-conducted trials have demonstrated that long-term opioid agonist therapy with methadone and buprenorphine have great efficacy for OUD treatment and can save lives. New forms of the opioid receptor antagonist naltrexone are also being studied. Some frequently used approaches have less scientifically robust evidence but are nevertheless considered important, including community preventive strategies, harm reduction interventions to reduce adverse sequelae from ongoing use and mutual aid groups. Other commonly used approaches, such as detoxification alone, lack scientific evidence. Delivery of effective prevention and treatment responses is often complicated by coexisting comorbidities and inadequate support, as well as by conflicting public and political opinions. Science has a crucial role to play in informing public attitudes and developing fuller evidence to understand OUD and its associated harms, as well as in obtaining the evidence today that will improve the prevention and treatment interventions of tomorrow.

Our understanding of opioid use disorder (OUD) is complicated by strong public and political opinions about drug use behaviours. It is, therefore, particularly important to use science to guide our response to the global burden of the disorder (FIG. 1), to understand the aetiology of OUD and to critically examine the scientific evidence for the effect of interventions. OUD is now recognized as a chronic relapsing disorder from which it is nevertheless possible to achieve successful recovery whilst remaining alert to the propensity to relapse. The disorder can involve the use of opiates in naturally occurring compounds such as the resin of the opium poppy (used to derive morphine or codeine), synthetic or semi-synthetic pharmaceutical opioids (such as hydrocodone or oxymorphone), and illicitly manufactured or distributed substances (such as heroin, fentanyl and analogues). Opioid use outside of its appropriate clinical applications (that is, in the management of severe acute pain or anaesthesia) is an important public health issue given the potential addictiveness of these drugs, the extent of associated harms (such as overdose deaths) and the potential health sequelae of drug-use behaviours (for example, HIV and hepatitis C virus (HCV) infection and transmission, bacterial endocarditis, and neonatal abstinence syndrome). In addition, opioid use outside clinical indications is associated with wider societal costs, such as harms to family cohesion, reduced employment and economic contribution, and increased risk and costs of crime (both from the illegal drug market per se and individuals using crime to fund their drug use).

Over the past few decades, the understanding of the mechanisms underlying the development of dependence, addiction and other complications from opioid use has greatly improved, and more is understood about the interconnected nature whereby harms are associated with drug-use behaviours. OUD is best understood as a biopsychosocial disorder in which genetic factors, adverse early development, mental illness, social norms, drug exposure and market availability can influence the extent of exposure and the opportunity for drug use, as well as the progression and development of OUD and associated harms. Indeed, polygenic influences on observed familial transmission are being increasingly identified, the brain effects of drugs and the nature of the neuronal circuits underlying the aberrant behaviours in addiction can be imaged and measured, factors that protect from, or aggravate, progression of OUD can be recognized, and influences that create specific drug epidemics at particular points in time, space and context can be understood.

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https://doi.org/10.1038/s41572-019-0137-5

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Nat Rev Dis Primers **6**, 3 (2020). https://doi.org/10.1038/s41572-019-0137-5

What other content do Nature Reviews publish?

The Nature Reviews journals publish a variety of content types that appeal to a wide audience, from patients to professors

- Biobusiness Briefs (NRDD)
- PrimeViews (NRDP)
- Comment
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- Editorials
- News in Brief
- Opinion
- Perspective
- Progress
- Research Highlight
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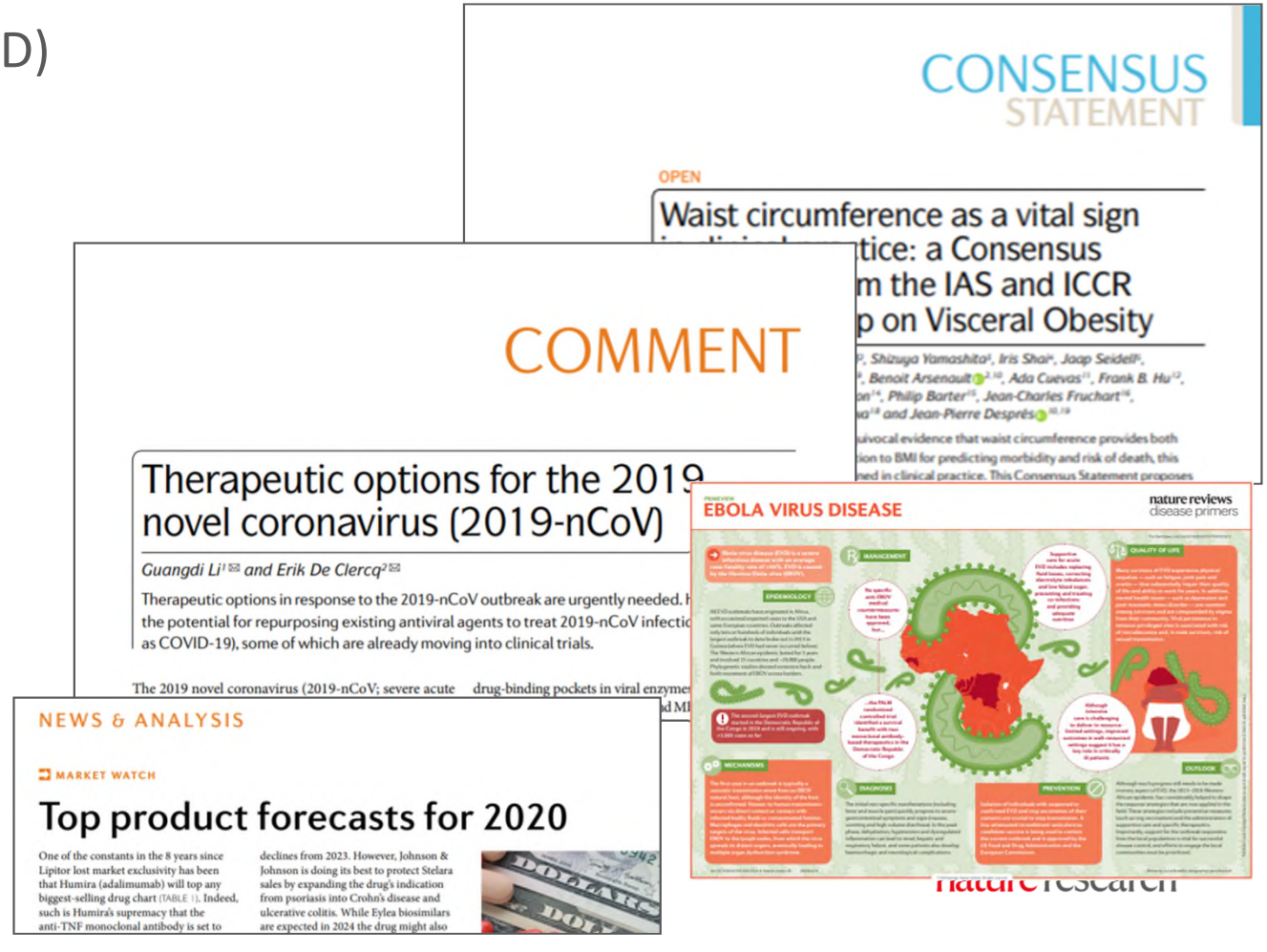

Poll Questions 3 & 4

Do you see demand directly from your patrons for Reviews journals?

How important is it to you or your users that review articles are OA?

Q&A

Ask today's speakers questions by typing your questions into the Webex chat box.

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The story behind the image

Antarctica meltdown could double sea level rise

Researchers at Pennsylvania State University have been considering how quickly a glacial ice melt in Antarctica would raise sea levels. By updating models with new discoveries and comparing them with past sea-level rise events they predict that a melting Antarctica could raise oceans by more than 3 feet by the end of the century if greenhouse gas emissions continued unabated, roughly doubling previous total sea-level rise estimates. Rising seas could put many of the world's coastlines underwater or at risk of flooding and storm surges.

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