



Biochemical Society

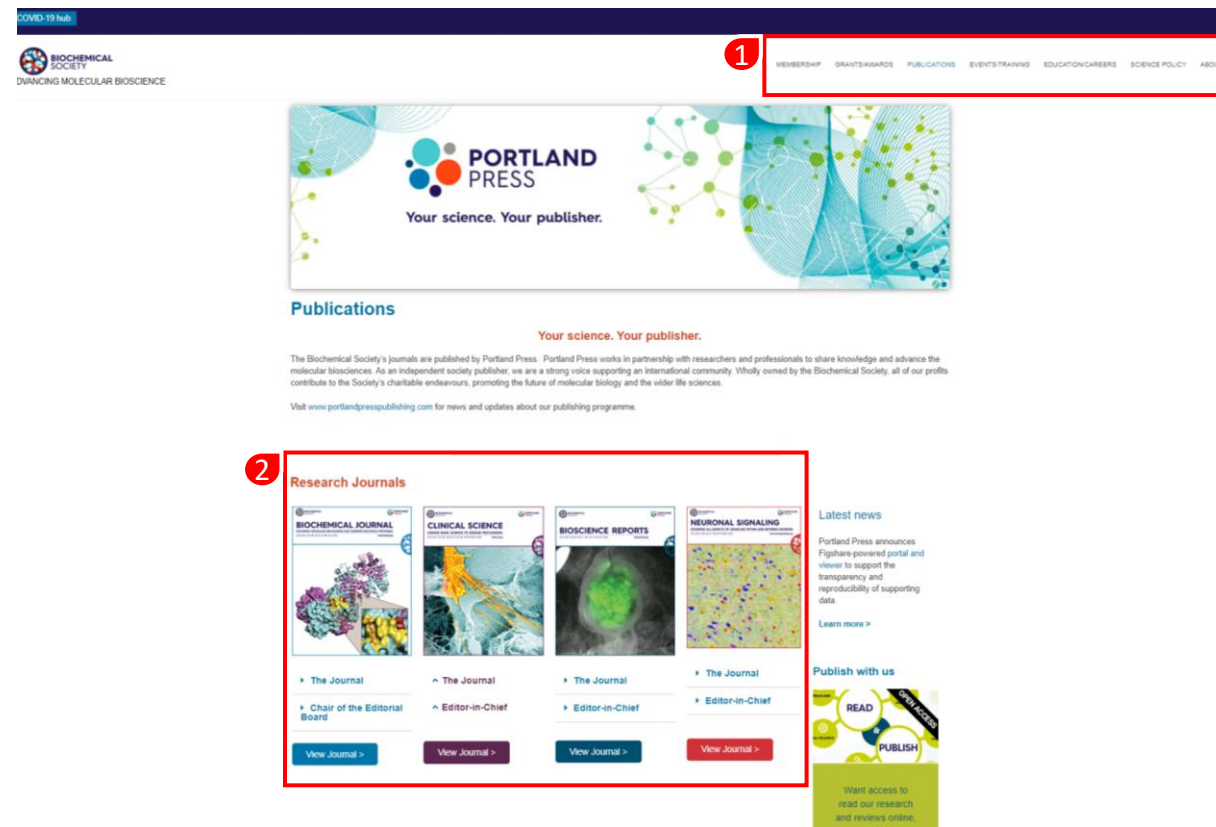
- Biochemical Society promove o futuro das biociências moleculares; facilitando o compartilhamento de conhecimentos, apoiando o avanço da bioquímica e da biologia molecular e conscientizando sua importância na abordagem dos grandes desafios da sociedade.



- Os journals da Biochemical Society são publicados pela Portland Press que trabalha em parceria com pesquisadores e profissionais da área para compartilhar conhecimento e promover as biociências moleculares.

A página inicial da editora é dividida em duas partes:

1. Barra superior de navegação
2. Acesso aos *journals*



A página de pesquisa avançada é dividida em cinco partes:

1. Caixa de pesquisa básica
2. Área de pesquisa avançada
3. Barra de navegação superior
4. Conteúdos mais recentes
5. Edição atual

The screenshot shows the Biochemical Journal website interface. The top navigation bar includes the Portland Press logo, a search bar (1), a dropdown menu for 'Biochemical Journal', an 'Advanced Search' button (2), and links for 'Register', 'CAPES Brazil', and 'Sign In'. Below this is a secondary navigation bar with the journal logo and a menu (3) containing 'ISSUES', 'ACCEPTED MANUSCRIPTS', 'AUTHORS', 'LIBRARIANS', 'POLICY', and 'ABOUT'. The main content area is divided into three columns. The left column (4) is titled 'Latest' and lists recent articles. The middle column features a 'CURRENT ISSUE' section (5) with a cover image and a 'VIEW THIS ISSUE' button. The right column includes the 'Chair of the Editorial Board' (David Carling), a 'Submit your work' button, and a 'Sign up to alerts' button. A blue banner at the bottom states: 'Biochemical Society and Portland Press suspend paywalls on all published content >'. Below the banner is a notice regarding the COVID-19 pandemic and the journal's commitment to open access.

A página de pesquisa avançada é dividida em três partes.

Busca por:

1. Termo
2. Autor
3. Artigo específico

Advanced Search

1

Enter Term

Search For: ☒ Any ☐ All ☐ Exact Phrase

[Filter](#)

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Find a specific article

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- Select a Journal Year Volume Issue First Page

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DOI Search

A página de resultados é dividida em duas partes:

1. Coluna lateral de refinamento dos resultados de pesquisa
2. Resultados de pesquisa

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Small molecule

Filter ▾

ADD TERM **UPDATE**

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FORMAT

- ☐ Articles (74731)
- ☐ Images (3514)

SUBJECTS

- ☐ Cancer (917)
- ☐ Molecular Bases of Health & Disease (772)
- ☐ Signaling (614)
- ☐ Gene Expression & Regulation (561)
- ☐ Cardiovascular System & Vascular Biology (502)
- ☐ Molecular Interactions (493)

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Small molecule

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ARTICLES

Small molecule H8g renders the phosphorylation of S6K1 and AKT resistant to mTOR inhibitors

Chase H Mellick, Jenna Jewell

Journal: *Biochemical Journal*

Biochem J (2020) BCJ20190958.

DOI: <https://doi-org.ez1.periodicos.capes.gov.br/10.1042/BCJ20190958>

Published: 29 April 2020

... nutrients kinase inhibitors **Small molecule** H89 renders the phosphorylation of S6K1 and AKT resistant to...

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ARTICLES

Small molecule targeting of SHIP1 and SHIP2

William G. Kerr, Chiara Pedicone, Shawn Dormann, Angela Pachterille, John D. Chisholm

Journal: *Biochemical Society Transactions*

Biochem Soc Trans (2020) 48 (1): 291–300.

DOI: <https://doi-org.ez1.periodicos.capes.gov.br/10.1042/BST20190775>

Published: 12 February 2020

... pathway. The development of **small molecules** that selectively target one of the SHIP paralogs (SHIP1 or...

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ARTICLES

Selective small-molecule EPAC activators

Urszula Luchowska-Stańska, David Morgan, Stephen J. Yarwood, Graeme Barker

Journal: *Biochemical Society Transactions*

Biochem Soc Trans (2019) 47 (5): 1415–1427.

DOI: <https://doi-org.ez1.periodicos.capes.gov.br/10.1042/BST20190254>

Published: 11 October 2019

... cells. We herein summarise the current state-of-the-art in **small-molecule** EPAC activity modulators...

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A página do artigo é dividida em quatro partes:

1. Título e informações do artigo
2. Ferramentas diversas e visualização em PDF
3. Conteúdo do artigo
4. Estrutura de navegação entre tópicos

Volume 476, Issue 16
August 2019

BIOCHEMICAL JOURNAL
RESEARCH ARTICLE | AUGUST 30 2019

A novel small molecule A_{2A} adenosine receptor agonist, indirubin-3'-monoxime, alleviates lipid-induced inflammation and insulin resistance in 3T3-L1 adipocytes

Saynaz A. Choudhary, Nikita Bora, Dipanjan Banerjee, Leena Arora, Anindhya Sundar Das, Rakesh Yadav, Karl-Norbert Klotz, Durba Pal

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Biochem J (2019) 476 (16): 2371–2391.
<https://doi-org.ez1.periodicos.capes.gov.br/10.1042/BCJ20190251> [Article history](#)

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Volume 476, Issue 16
August 2019

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Abstract

Saturated free fatty acid-induced adipocyte inflammation plays a pivotal role in implementing insulin resistance and type 2 diabetes. Recent reports suggest A_{2A} adenosine receptor (A_{2A}AR) could be an attractive choice to counteract adipocyte inflammation and insulin resistance. Thus, an effective A_{2A}AR agonist devoid of any toxicity is highly appealing. Here, we report that indirubin-3'-monoxime (I3M), a derivative of the bisindole alkaloid indirubin, efficiently binds and activates A_{2A}AR which leads to the attenuation of lipid-induced adipocyte inflammation and insulin resistance. Using a combination of *in silico* virtual screening of potential anti-diabetic candidates and *in vitro* study on insulin-resistant model of 3T3-L1 adipocytes, we determined I3M through A_{2A}AR activation markedly prevents lipid-induced impairment of the insulin signaling pathway in adipocytes without any toxic effects. While I3M restrains lipid-induced adipocyte inflammation by inhibiting NF-κB dependent pro-inflammatory cytokines expression, it also augments cAMP-mediated CREB activation and anti-inflammatory state in adipocytes. However, these attributes were compromised when cells were pretreated with the A_{2A}AR antagonist, SCH 58261 or siRNA mediated knockdown of A_{2A}AR. I3M, therefore, could be a valuable option to intervene adipocyte inflammation and thus showing promise for the management of insulin resistance and type 2 diabetes.

Keywords: A_{2A}AR activation, adipocyte inflammation, indirubin-3'-monoxime, insulin resistance, saturated free fatty acid

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- A Dot.Lib é uma empresa brasileira dedicada à disseminação da informação científica através do fornecimento de acesso online a livros digitais, periódicos eletrônicos e bases de dados nas mais diversas áreas do conhecimento.
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