



# Evolving Identity & Access Management at ACS

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# ACS Overview



- ACS is the world's largest scientific society with nearly 157,000 members.
- ACS is a major publisher of journals in chemistry and related sciences.
- ACS is a major provider of scholarly research and discovery tools.
- *Customer authentication largely reflects these three organizational pillars.*

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APRIL 2-6, 2017 | San Francisco, CA

**Sudemycin K: A Synthetic Antitumor Splicing Inhibitor Variant with Improved Activity and Versatile Chemistry**

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<sup>6</sup>CIBER-BBN, Networking Centre on Bioengineering, Biomaterials and Nanomedicine, Barcelona, Spain  
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**Supporting Information**

**ABSTRACT:** Important links exist between the process of pre-mRNA splicing and cancer, as illustrated by the frequent mutation of splicing factors in tumors and the emergence of various families of antitumor drugs that target components of the splicing machinery, notably SF2B1, a protein subunit of spliceosomal U2 small nuclear ribonucleoprotein particle (snRNP). Sudemycins are synthetic compounds that harbor a pharmacophore common to various classes of splicing inhibitors. Here, we describe the synthesis and functional characterization of novel sudemycin analogues that functionally probe key chemical groups within this pharmacophore. Our results confirm the importance of a conjugated diene group and in addition reveal significant spatial flexibility in this region of the molecule. Sudemycin K, a derivative that replaces the pharmacophore's oxycarbonyl by an amide group, displays improved potency as an inhibitor of cancer cell proliferation, as a regulator of alternative splicing in cultured cells and as an inhibitor of *in vitro* spliceosome assembly. Sudemycin K displays higher stability, likely related to the replacement of the oxycarbonyl group, which can be a substrate of esterase, by an amide group. The activity and special reactivity of sudemycin K can pave the way to the synthesis and evaluation of a variety of novel sudemycin derivatives.

The high incidence of cancer and severe limitations in current therapies (e.g., side effects and drug resistance) make the identification of new drugs and targets an area of intense investigation in oncology. Several small molecules targeting components of the RNA splicing machinery have included the branch point sequence (containing an adenosine involved in 2'-5' phosphodiester bond formation with the 5' end of the intron after the first catalytic step of the splicing reaction), a polypyrimidine tract, and a conserved AG dinucleotide at the 3' end of the intron. The first steps of



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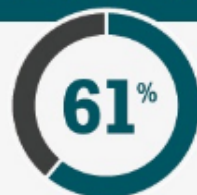
# Password Proliferation

## THE PROBLEM WITH Password Proliferation



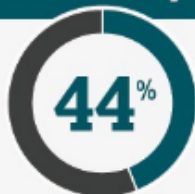
**60%** of people say they cannot memorize all of their passwords.

### If It Ain't Broke...



**61%** of consumers reuse passwords among multiple websites.

### Generally Speaking...



**44%** of consumers change their passwords only once a year.

### Even Worse...

Most organizations are working across multiple applications, each requiring its own password.

- Has caused considerable frustration as users have dozens of passwords to manage.
- Has weakened security as passwords are reused across sites.
- Does nothing to discourage password sharing.

# ACS Enterprise-wide IAM Initiative



- Launched an initiative in late 2014 to streamline the customer authentication experience and provide seamless customer access across product lines.
  - Modernizing underlying identity management technology.
  - Streamlining user experience for customer login and profile management.

## Gartner®

### Consumer Identity and Access Management Is a Digital Relationship Imperative

30 December 2015

G00293444

Analyst(s): *Mary Ruddy | Lori Robinson*

#### Summary

Digital business is expanding the need for customer-facing identity and access management. CIAM capabilities — including user registration, social login and user profile management — can enable you to provide a secure, unified and business-enhancing customer experience across multiple channels.

# ACS Shibboleth Support



- ACS journals provide limited support for Shibboleth.



ACS Publications navigation bar: Home, Authors & Reviewers, Librarians & Account Managers, ACS Members, Alerts, About Us, ACS & Open Access

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# RA21 Initiative



The global voice of  
scholarly publishing

## RA21: Resource Access in the 21st Century

### What is RA21?

Resource Access for the 21<sup>st</sup> Century (RA21) is an STM initiative aimed at optimizing protocols across key stakeholder groups, with a goal of facilitating a seamless user experience for consumers of scientific communication. In addition, this comprehensive initiative is working to solve long standing, complex, and broadly distributed challenges in the areas of network security and user privacy. Community conversations and consensus building to engage all stakeholders is currently underway in order to explore potential alternatives to IP-authentication, and to build momentum toward testing alternatives among researcher, customer, vendor, and publisher partners.

- ACS was a founding partner of the STM RA21 initiative and fully embraces its principle goals:
  - Seamless user experience for researchers across varied systems.
  - Effective solution regardless of researcher's starting point, location, or device.
  - Consistent with emerging privacy regulations; avoid creation of yet another ID.
  - Supporting mechanisms for detecting fraud.

# RA21 Initiative



The global voice of  
scholarly publishing

- Core components of new resource access framework:
  - Federated user authentication.
  - Improved WAYF discovery with a consistent user experience across participating publisher sites.
  - Standard taxonomy for attribute exchange.
    - Faculty/Staff/Student roles. Emeritus/retired vs. active faculty.
    - Department codes to facilitate more granular usage reporting.
    - Contract ID for subscribed services.
  - Mechanism for sharing potentially compromised user accounts.

# Compromised Credentials

- A significant black market exists for the sale of compromised university credentials.



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**公告: (2014.12.29)**

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# Compromised Credentials

- Federated trust frameworks offer great promise for ease of access, but also some inherent risk.



DOC VERSION: 1.0

DATE 14.12.2015

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TITLE / REFERENCE: SIRTFI

## **A Security Incident Response Trust Framework for Federated Identity (Sirtfi)**

**Authors: T. Barton, J. Basney, D. Groep, N. Harris, L. Johansson,  
D. Kelsey, S. Koranda, R. Wartel, A. West**

**Editor: H. Short**

“Since one user credential may have access to SPs at multiple organisations, it presents a way to leverage a compromise at one organisation into an attack on others. The global scale of the overall federated access management system also poses a new challenge to ability to respond to security incidents.”

Source: <https://refeds.org/wp-content/uploads/2016/01/Sirtfi-1.0.pdf>

# 2017 Timeline



## RA21: Resource Access in the 21st Century

- January-February: Call for pilot participation and survey on identity management capabilities.
- March-September: Conduct pilots.
- October-December: Access results, draft recommended best practices.

# For more information



## RA21: Resource Access in the 21st Century

<http://www.stm-assoc.org/standards-technology/ra21-resource-access-21st-century/>

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