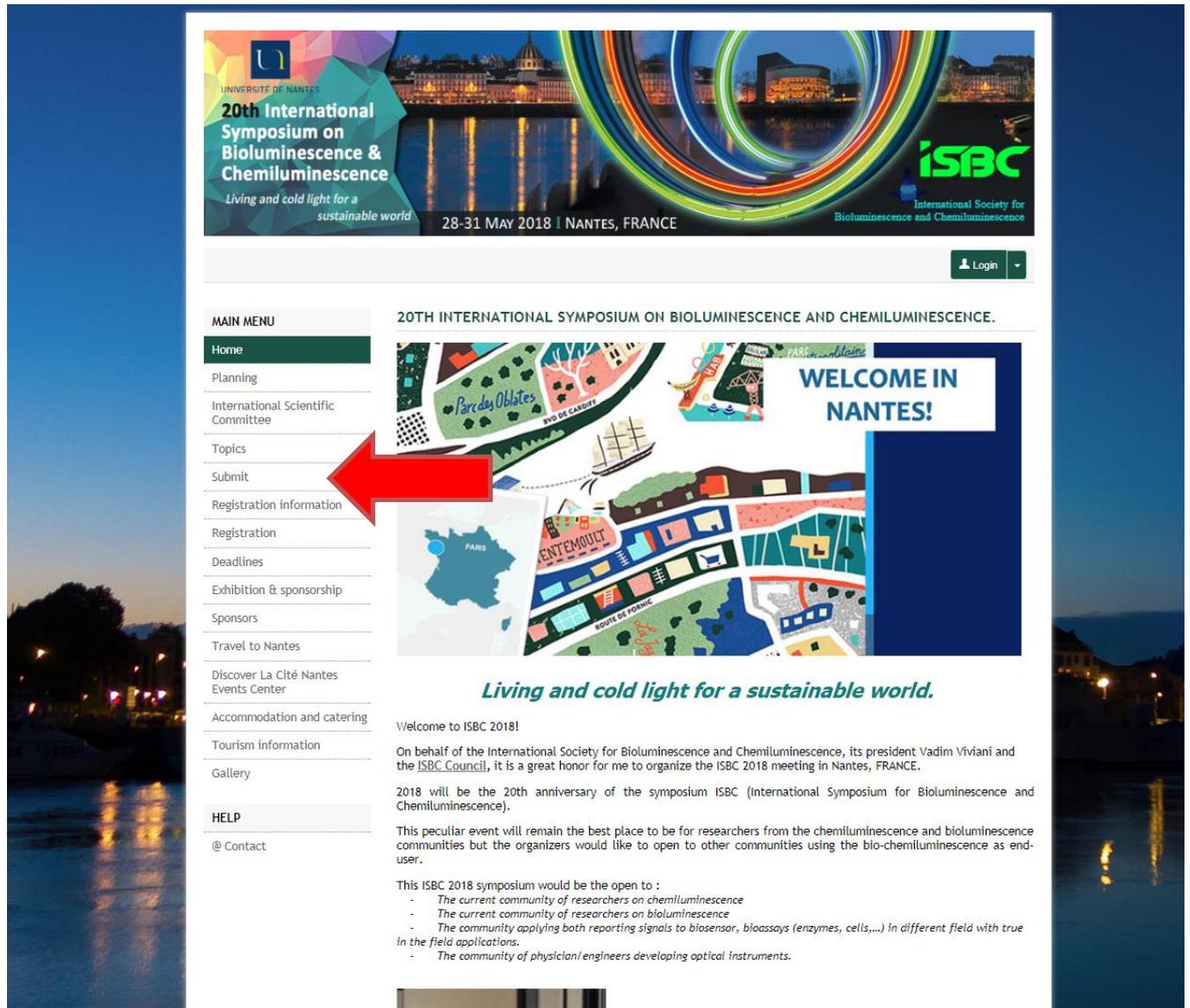


Information for authors.

The abstract is limited to 300 words.

To submit a new abstract, please refer to the following instruction.

STEP 1 : To submit a new abstract, click on « Submit » in the menu at left.



The image shows a screenshot of the website for the 20th International Symposium on Bioluminescence and Chemiluminescence (ISBC 2018) held in Nantes, France, from May 28-31, 2018. The website features a header with the event title, dates, location, and the ISBC logo. A main menu on the left lists various navigation options, with a red arrow pointing to the 'Submit' link. The main content area includes a colorful map of Nantes, a 'WELCOME IN NANTES!' banner, and a welcome message from the organizers. The message states that 2018 marks the 20th anniversary of the symposium and lists the target audience for the event.

**20th International Symposium on Bioluminescence & Chemiluminescence**  
*Living and cold light for a sustainable world*  
28-31 MAY 2018 | NANTES, FRANCE

International Society for Bioluminescence and Chemiluminescence

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**HELP**

- @ Contact

**20TH INTERNATIONAL SYMPOSIUM ON BIOLUMINESCENCE AND CHEMILUMINESCENCE.**

**WELCOME IN NANTES!**

*Living and cold light for a sustainable world.*

Welcome to ISBC 2018!

On behalf of the International Society for Bioluminescence and Chemiluminescence, its president Vadim Viviani and the [ISBC Council](#), it is a great honor for me to organize the ISBC 2018 meeting in Nantes, FRANCE.

2018 will be the 20th anniversary of the symposium ISBC (International Symposium for Bioluminescence and Chemiluminescence).

This peculiar event will remain the best place to be for researchers from the chemiluminescence and bioluminescence communities but the organizers would like to open to other communities using the bio-chemiluminescence as end-user.

This ISBC 2018 symposium would be the open to :

- The current community of researchers on chemiluminescence
- The current community of researchers on bioluminescence
- The community applying both reporting signals to biosensor, bioassays (enzymes, cells,...) in different field with true in the field applications.
- The community of physician/engineers developing optical instruments.

STEP 2 :

- You already have an account => connect you.
- You do not have an account => create your account .

Appuyez sur **F11** pour quitter le mode plein écran.

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**SUBMIT**

**I ALREADY HAVE AN ACCOUNT**

If you already have an account on SciencesConf.org or HAL, you can directly log in using your settings

Login

[Lost password ?](#)

**I DO NOT HAVE AN ACCOUNT**

If you do not already have an account on SciencesConf or HAL, you can directly create an account by clicking below.

I do not have an account

Online user: 3

CCSD

STEP 3: Click on « Submissions » in the menu « MY SPACE ».

The screenshot displays the website for the 20th International Symposium on Bioluminescence & Chemiluminescence (ISBC) at the University of Nantes. The header features the event title, dates (28-31 MAY 2018), location (NANTES, FRANCE), and the ISBC logo. Below the header, the user 'Sulivan T Jouanneau' is logged in, with options to 'Edit account' or 'Logout'. The main navigation is divided into three sections: 'MAIN MENU', 'MY SPACE', and 'HELP'. The 'MY SPACE' section is expanded, showing 'My Space', 'Submissions', and 'Register'. A large red arrow points to the 'Submissions' link. The 'Submissions' section contains links for 'My submissions' and 'Articles list'. The 'Register' section contains links for 'My registration' and 'Registration module'. The 'MAIN MENU' includes links for Home, Planning, International Scientific Committee, Topics, Submit, Registration information, Registration, Deadlines, Exhibition & sponsorship, Sponsors, Travel to Nantes, Discover La Cité Nantes Events Center, Accommodation and catering, Tourism information, and Gallery. The 'HELP' section includes a link for '@ Contact'.

STEP 4: Click on « Submit an abstract ».

The screenshot displays the website for the 20th International Symposium on Bioluminescence & Chemiluminescence (ISBC) held at the University of Nantes in France from May 28-31, 2018. The header features the event title, dates, location, and the ISBC logo. Below the header, the user is logged in as Sullivan T. Jouanneau. The main content area is titled 'SUBMISSIONS > MY SUBMISSIONS' and includes a message: 'Upload your paper. Modifications of your submission will be possible until the start of the review process.' A 'New submission' section contains two buttons: 'Go to the abstract submission page' and 'Submit an abstract'. A large red arrow points to the 'Submit an abstract' button. The left sidebar contains a 'MAIN MENU' with links to Home, Planning, International Scientific Committee, Topics, Submit, Registration information, Registration, Deadlines, Exhibition & sponsorship, Sponsors, Travel to Nantes, Discover La Cité Nantes Events Center, Accommodation and catering, Tourism information, and Gallery. Below this is a 'MY SPACE' section with links to My Space, Submissions (highlighted), and Register. At the bottom is a 'HELP' section with a link to Contact.

STEP 5: To deposit your abstract, several information are required :

1. Title of the abstract
2. Text of abstract (300 words max. ). A word counter is available (green arrow)
3. Select the wished type of communication (**Oral (20 min) / poster / Oral spotlight**)
4. Choose themes that you that may apply to your proposal.
5. Indicate relevant keywords, using a semicolon to separate keywords.

UNIVERSITÉ DE NANTES  
**20th International Symposium on Bioluminescence & Chemiluminescence**  
Living and cold light for a sustainable world  
28-31 MAY 2018 | NANTES, FRANCE  
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International Society for Bioluminescence and Chemiluminescence

Sullivan T. Jouanneau

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**MY SPACE**

- My Space
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**HELP**

- @ Contact

**NEW SUBMISSION**

1 Metadata 2 Author(s) 3 File(s) 4 Overview

(\* : Required fields)

**Title \***

**Abstract \***  
Please enter the text of your abstract

**Type \***  
Choose the type of document you are uploading  
Oral (20 min)

**Topic \***  
Select themes that may apply to your proposal. Please note that the organizers may re-allocate proposal. For multiple selection, hold down the Ctrl or cmd key when selecting items.  
BL1. Theoretical insights in chemi- and bio-luminescence  
BL2. Firefly Bioluminescence: Molecules and Mechanisms  
BL3. Firefly: Systematics, Phylogeny, Evolution and Genomics  
BL4. Luminous mushroom: Chemistry, Biochemistry, and Biodiversity

**Key words \***  
Indicate relevant keywords, using a semicolon to separate the words. They may be used to search for related topics on the conference website.

Words: 0/300

Next step

STEP 6: Complete the authors list. All authors must be add individually. To add an author, first click on "Add an author" and fill in the form, secondly click on "Add an affiliation" and enter the details of the author's institution(s).

The screenshot displays the submission interface for the 20th International Symposium on Bioluminescence & Chemiluminescence (ISBC) at the University of Nantes, held from May 28-31, 2018. The page features a navigation menu on the left and a main content area for a 'NEW SUBMISSION'. The submission process is divided into four steps: 1. Metadata, 2. Author(s), 3. File(s), and 4. Overview. A red arrow highlights the 'Add an author (+)' link in the 'Author(s)' section. Below this, a table lists the current author, Sullivan Jouanneau, with options to add an affiliation or remove the author. A 'Next step' button is visible at the bottom of the submission area.

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Sulivan T Jouanneau

**NEW SUBMISSION**

1 Metadata 2 Author(s) 3 File(s) 4 Overview

You must add all authors individually. To add an author, first click on "Add an author" and fill in the form, secondly click on "Add an affiliation" and enter the details of the author's institution(s).

**Author(s)** Add an author (+)

SPEAKER	AUTHOR(S)	ACTIONS
<input type="checkbox"/>	<input checked="" type="checkbox"/> Sullivan Jouanneau Jouanneau Add an affiliation...	<input type="checkbox"/>

Next step

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**HELP**

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STEP 7: It is possible to add supplementary data. This step is optional.

The screenshot shows a web interface for submitting data to the 20th International Symposium on Bioluminescence & Chemiluminescence (ISBC) in Nantes, France, from May 28-31, 2018. The header features the event logo and the theme "Living and cold light for a sustainable world". The user is identified as "Sulivan T Jouanneau".

The main content area is titled "NEW SUBMISSION" and includes a progress bar with four steps: 1. [Metadatas](#), 2. [Author\(s\)](#), 3. **File(s)**, and 4. [Overview](#). Step 3 is currently active.

Under the "Supplementary data" section, there is a text box explaining that users can add supplementary data by uploading files, retrieving documents from URLs, or integrating HTML. Below this are three upload options:

- Upload file:** A button labeled "Chisissez un fichier" and "Aucun fichier choisi" with an "Upload" button.
- Upload file from an URL:** A text input field and an "Import" button.
- Integrate HTML:** A dropdown menu and an "Integrate" button.

A table below shows the current state of the submission:

FILE	TYPE OF THE FILE	DESCRIPTION	ACTIONS
No file			

A "Next step" button is located at the bottom of the submission area.

The left sidebar contains a "MAIN MENU" with links to Home, Planning, International Scientific Committee, Topics, Submit, Registration information, Registration, Deadlines, Exhibition & sponsorship, Sponsors, Travel to Nantes, Discover La Cité Nantes Events Center, Accommodation and catering, Tourism information, and Gallery. Below this is a "MY SPACE" section with links to My Space, Submissions, and Register. At the bottom is a "HELP" section with a link to @ Contact.

STEP 8: The last step is an overview of the overall procedure of deposition.



Sullivan T. Jouanneau

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**NEW SUBMISSION**

1 [Metadatas](#) 2 [Author\(s\)](#) 3 [File\(s\)](#) 4 [Overview](#)

[sciencesconf.org/isbc-2018:179136](https://sciencesconf.org/isbc-2018:179136)

### BIOLOGICAL METHOD FOR THE MONITORING OF HEAVY METALS IN WATER : DEVELOPMENT OF DECISION TREES WITH AN ARRAY OF FIVE BACTERIAL STRAINS INCLUDED IN A BIOSENSOR

[Sullivan Jouanneau](#) <sup>1,\*</sup> [@](#)

1 : Jouanneau  
*PRES Université Nantes Angers Le Mans [UNAM] : UMR6144*  
\* : Corresponding author

Monitoring environmental pollution needs the developpement of rapid and cheap methods. Among them bacterial bioluminescent biosensors are analytical devices which could be easily used for this purpose. Bioluminescence coded by the *luxCDABE* genes is the light produced by some natural bacteria. Application of reporter gene technology led to the development of specific bioluminescent bacteria by insertion of *lux* genes promoterless down-stream to a pollutant-responsive gene. Following this concept, in order to detect heavy metals pollution we have developed five engineered bacteria the bioluminescence of which increases with the presence of metals.

In a first step we evaluated the specificity and the sensitivity of the strains for the detection of metals in water and contaminated food. We studied the response of these strains to a mixture of metals in order to assess synergistic, additive or antagonist effects in these samples.

A statistical model based on several decision trees of CHAID type (Chi squared Automatic Interaction Detector) was designed in order to analyse the complex set of bioluminescence responses of the five strains. The results shown that the presence of cadmium, mercury, copper and arsenic could be detected in the samples with a success of 98% and their concentrations could be determined in 90% of the occurrence.

In a second step these bioelements will be integrated in an optical device, already designed, and connected to a CCD camera for bioluminescence analysis. This biosensor will be devoted to the on line monitoring of heavy metals pollution.

Subject : : Oral (20 min)  
Topics : : BIOS4. Whole-cell bioreporters in environmental monitoring  
Keywords : : biosensor ; bioluminescence ; bacteria ; heavy metals ; detection  
PDF version : [PDF version](#)

Submit

It's possible to modify the provided information.

The screenshot shows the submission portal for the 20th International Symposium on Bioluminescence & Chemiluminescence (ISBC) at the University of Nantes. The header features the event title, dates (28-31 MAY 2018), location (NANTES, FRANCE), and the ISBC logo. The user is identified as Sullivan T. Jouanneau.

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**MY SPACE**

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**HELP**

- @ Contact

**SUBMISSIONS > MY SUBMISSIONS**

Upload your paper.  
Modifications of your submission will be possible until the start of the review process.

**New submission**

[Go to the abstract submission page](#)

**My submissions**

[View your submissions](#)

TITLE	ACTIONS
BIOLOGICAL METHOD FOR THE MONITORING OF HEAVY METALS IN WATER : DEVELOPMENT OF DECISION TREES WITH AN ARRAY OF FIVE BACTERIAL STRAINS INCLUDED IN A BIOSENSOR Sullivan Jouanneau sciencesconf.org/isbo-2018-179136	

**Edit**