

Abstract Submission Guideline

Joint 10th Australasian Gene and Cell Therapy Society (AGCTS) and
Australasian Society of Stem Cell Research (ASSCR) Scientific Meeting

Abstract format

Times New Roman, 10 point font, title in bold, underline presenting author, institution/affiliations in italics and a limit of 250 words for the abstract body (example provided below).

Abstract example

Use of Nuclear Localisation Sequences to Enhance Non-Viral Gene Delivery

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Viral based gene delivery constructs provide highly efficient gene transfer but have significant shortcomings, including immunogenicity, pathogenicity and the limited size of therapeutic DNA which can be incorporated into the viral genome. Non-viral approaches are not subject to these problems but, thus far, have proven inefficient in delivering therapeutic DNA to the nucleus. We have used various approaches to optimise non-viral DNA delivery by including nuclear localisation signals (NLSs), sequences that confer interaction with the host cell nuclear import machinery, and in particular with the NLS-recognition importin (IMP) proteins. We have developed optimised, enhanced form of the NLS of the simian virus SV40 large tumour antigen (T-ag), where the basic NLS (amino acids 126-132) is combined with the phosphorylation site-containing flanking amino acids (amino acids 111-125), including the nuclear transport facilitating protein kinase CK2 site, but with the nuclear transport inhibiting cyclin-dependent kinase site (threonine 124) inactivated by mutation. We have shown that the NLS (opT-NLS) can enhance nuclear delivery and thereby gene transfer of DNAs introduced into cells by calcium phosphate precipitation, lipofection, polylysine-mediated delivery, and even receptor-mediated delivery. In all cases, the NLS enhances transgene expression significantly, although other factors such as the size of the transfecting construct are clearly important. Overall, our results indicate that the considered use of NLSs can greatly enhance interaction of transfecting DNAs with the nuclear transport machinery of the cell, thereby facilitating nuclear delivery and transgene expression.

Instructions

- Abstracts are accepted from AGCTS members, ASSCR members or members of both Societies.
- The deadline for online oral abstract submission is **COB Friday 24 February 2017**.
- The deadline for online poster abstract submission is **COB Friday 24 March 2017**.
- Abstracts must be submitted online in a Word file format (.doc). Abstracts that do not follow this guideline **will not be accepted**.
- Please indicate your preference for a poster or oral presentation as well as listing your full contact details in the submission.
- Ensure the abstract filename contains the surname of the presenting author and in brackets the presentation preference of an oral or poster; for example Bloggs(oral).doc or Bloggs(posters).doc. **Ensure the filename contains no spaces**.
- Student presenting authors should also indicate their abstract presentation preference; for example Bloggs(studentoral).doc or Bloggs(studentposter).doc. **Ensure the filename contains no spaces**.
- Poster format size A0, portrait is preferred.

- Students eligible for an AGCTS Member Student Prize should print on their poster, eg “**Eligible for AGCTS Member Student Prize.**”
- Students eligible for an ASSCR Member Student Prize should print on their poster, eg “**Eligible for ASSCR Member Student Award.**”
- The organising committee will select oral and poster presentations from the submitted abstracts and will notify the presenting author by email.

Awards

Only **AGCTS members** are eligible for the following **conference awards**. Please upload an AGCTS Member Prize Application Form and indicate your eligibility for the prizes listed below.

- **AGCTS Panos Ioannou Young Investigator Award \$AUD2,000.** For travel support to attend the Japan Society of Gene and Cell Therapy Conference (≤ 6 years post-doctoral experience & senior PhD students).
- **AGCTS Student Member Conference Prize \$AUD250.** Two oral and two poster prizes offered.
- **AGCTS Esteemed Member Conference Prize \$AUD3,000.** For travel support to attend the British Society of Gene and Cell Therapy Conference (≥ 6 years post-doctoral experience; students are not eligible).

Only **ASSCR members** are eligible for the following **conference awards**. Please upload an ASSCR Member Prize Application Form and indicate your eligibility for the prizes listed below.

- **ASSCR Student Member Travel Award.** For travel support only to attend the Joint 10th AGCTS and ASSCR Scientific Meeting.
- **ASSCR ECR Member Travel Award.** For travel support only to attend the Joint 10th AGCTS and ASSCR Scientific Meeting.
- **ASSCR Student Member Oral or Poster Award \$AUD500.** One oral and one poster award offered.
- **ASSCR ECR Member Oral or Poster Award \$AUD500.** One oral and one poster award offered (no more than 6 years post-doctoral experience).