A*STAR TALENT SEARCH (A*TS)

ENTRY FORM

Please refer to “Instructions for Entry into the A*STAR Talent Search (A*TS)/Singapore Science & Engineering Fair (SSEF)” for details on how to fill up this Entry Form. All entries must be received by Friday, 16 January 2009.

PLEASE TYPE OR PRINT

Title of Research: ________________________________

________________________________________________

Please select one of the following categories

- Animal Sciences
- Biochemistry
- Cellular & Molecular Biology
- Chemistry
- Computer Science
- Earth & Planetary Science
- Engineering: Electrical & Mechanical
- Engineering: Materials & Bioengineering
- Energy & Transportation
- Environmental Management
- Environmental Sciences
- Mathematics Sciences
- Medicine & Health Sciences
- Microbiology
- Physics & Astronomy
- Plant Sciences

Subcategory: ____________________________________ (please refer to ANNEX 1)

The research project was conducted as part of

- SMP
- SRP
- NRP
- A*STAR-MOE Students Attachment Programme
- A*STAR H3-based Research Programme
- A*STAR Science Award (JC)
- A*STAR Young Researcher Attachment Programme
- Other scheme (E.g. School or Cluster Projects)

State where your research was conducted (e.g. Physics Lab, NUS):

________________________________________________

IMPORTANT: A*TS is for individual applicants only. If you have done your research as part of a team, you are still eligible to apply as an individual, but please state clearly your individual contributions to the team project.
**STUDENT INFORMATION**

<table>
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<tr>
<th>NAME (Pls underline surname):</th>
<th>(Chinese Characters, if applicable)</th>
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<td>ADDRESS:</td>
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<td>TELEPHONE NUMBER:</td>
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<td>E-MAIL ADDRESS:</td>
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<th>NRIC NO.</th>
<th>SEX</th>
<th>CITIZENSHIP:</th>
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<td>F/M</td>
<td>SINGAPOREAN / PR</td>
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<tr>
<th>DATE OF BIRTH (Day/Month/Year)</th>
<th>AGE (as at 31/12/2008)</th>
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**SCHOOL INFORMATION**

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<td>SCHOOL ADDRESS</td>
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<td>PRINCIPAL’S NAME</td>
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<td>NAME OF TEACHER I/C</td>
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**MOST INFLUENTIAL PERSON**

Which person has been most influential in the development of your scientific interest? Please name someone with whom you have had personal contact.

**Name and mailing address:**

<table>
<thead>
<tr>
<th>FULL NAME (include title such as Dr, Mr, Mrs, Ms, Professor, etc)</th>
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<tbody>
<tr>
<td>ADDRESS</td>
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<tr>
<td>CONTACT NO.</td>
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<th>What is this person’s relationship to you? (mother, father, teacher, etc.)</th>
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<tr>
<td>RELATIONSHIP</td>
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In what way(s) did this person influence you?
**STUDENT ACTIVITIES AND INTERESTS**

What occupation do you hope to follow after graduation?

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**CHOICE #1**

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**CHOICE #2**

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Have you ever participated in any of the following activities?

- ☐ Science fair/ Olympiads
- ☐ Science Research Programme / Attachment programme
- ☐ Science training programme
- ☐ Others; please specify: ____________

**A)** List down the projects done at Science fair / Olympiads/Competitions:

<table>
<thead>
<tr>
<th>Title of Science Fair</th>
<th>Title of Project</th>
<th>Duration (MM/YY to MM/YY)</th>
<th>Objective of Project</th>
<th>Status / Outcome of Project</th>
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**B)** List down the research projects done at the Science Research Programme or the Science Mentorship Programme or other Science Research/Attachment programme:

<table>
<thead>
<tr>
<th>Type of Programme</th>
<th>Title of Project</th>
<th>Institute</th>
<th>Duration (MM/YY to MM/YY)</th>
<th>Objective of Project</th>
<th>Status / Outcome of Project</th>
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**C)** List down the projects done at any other science training / research programmes in your school:

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<th>Type of Programme</th>
<th>Title of Project</th>
<th>Institute</th>
<th>Duration (MM/YY to MM/YY)</th>
<th>Objective of Project</th>
<th>Status / Outcome of Project</th>
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**LIST down the CO-CURRICULAR ACTIVITIES** (outside the classroom) you have participated in and the Clubs/Societies/Uniform Groups to which you belong. *(DO NOT provide photocopies of these)*

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<th>Clubs/Societies/Uniform Groups</th>
<th>Position Held</th>
<th>Duration (MM/YY to MM/YY)</th>
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LIST down any special recognition, awards, honours and scholarships you have received. (DO NOT give us photocopies of these)

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<tr>
<th>Awards / Honours / Scholarships</th>
<th>Awarded by</th>
<th>Year</th>
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ATTACH your recent end-of-the-year results (e.g. ‘O’ Levels or equivalent)

To give the judges a better understanding of you, please answer the following questions in concise sentences. (Please keep within the constraints of the spaces provided)

What studies/subjects in school do you like the most?

What areas of study/subjects in school do you like the least?

If you could do just as you please, what would you really like to be doing ten or fifteen years from now? Why?

What do you hope to contribute to science or knowledge in general? What benefits do you think your research will bring to others?
To help the judges assess your area of research and project more accurately, please answer the following questions in concise sentences. (Please keep within the constraints of the spaces provided)

RESEARCH REPORT:

(a) How did you get the idea for your research?

(b) Where was the research done and who supervised your research? Give names, titles, addresses and phone numbers.

(c) What help did you receive while doing your research? Name who helped you and the type of help rendered. (Be sure to include help received in equipment/materials use or loan, ideas, methodology, etc.)

(d) What have you learnt from writing the Research Report?

In each of the following areas, you should use specific examples to support the general statements or evaluations.

SCIENTIFIC ATTITUDE: What have you done which demonstrates your scientific attitude? What is your approach to solving a problem?
CURIOSITY: What ideas or devices have particularly attracted your attention and what have you done about them?

INVENTIVENESS: Have you ever made a discovery that was exciting and new to you? What was it and how did it come about? Have you ever produced an idea or experiment that was new to everyone? Describe the idea/experiment and the circumstances surrounding it.
*(please use a separate sheet of paper, if necessary, to list ALL the innovative projects that you have undertaken)*

INITIATIVE: What have you done outside of your school curriculum that shows initiative? How did you pursue these activities, what difficulties did you encounter, and how did you handle them?

WORK HABITS: What are your work habits? Are you more interested in the overall planning of a project, or in the specific details?

I certify that all the information given above is correct. I understand that the Project Report I am submitting may be used in any way by A*STAR and will NOT be returned to me. You have my permission to use appropriate information about me for publicity purposes.

Signature of student ___________________________ Date: ___________________________

Name of student: ___________________________

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Science Centre

Singapore
PART II - CONFIDENTIAL REPORT

PART II - To be filled out by the Supervising Scientist (if applicable)

CONFIDENTIAL REPORT

If a student does any substantial research in a scientist’s laboratory, these questions must be answered by the scientist. This information must accompany the student’s entry form.

1. *How did the student get the idea for his/her project?*
   
   Was the project assigned or did the student pick it from a list of possible research topics? Did it arise from previous work in which student was engaged in?

2. *Did the student contribute original ideas to the following?*
   
   If so, please elaborate.
   
   • topic:
   
   • research process:

3. *Did the student work on the project as part of a team or group?*
   
   If so, how big was the team, what was the nature of the team (student, group of adult researchers, etc.) and what was the student’s role in the team?

   [ ] Student worked alone.

   [ ] Student worked in group. State contribution of this student to the project

4. *How independently did the student work on the project?*
   
   How much help did he/she receive (in the experimental design, choice of techniques, use of special instrument or equipment, construction of equipment, gathering of data, evaluation of data, arriving at conclusion, etc.)? [please indicate using the scale 1 to 5, where 1 indicates independent work while 5 indicates complete supervision required]

   Experimental design: ( ); Choice of techniques: ( ); Construction of equipment: ( );

   Use of equipment: ( ); Gathering data: ( ); Evaluation of data: ( );

   Report writing: ( ) - please indicate 3, 4 or 5, if the report was read through and corrected by yourself

   Comments:
5. **What did the student do which showed creativity and ingenuity?**
   Was it in experimental construction or use of equipment, evaluation of data, etc.? Please state if you know of any examples?

6. **What was the intensity of the program?**
   Number of times per week, total duration, full-time vs. part-time etc.

7. **Has the student received a salary or other compensation for doing his/her research?**
   - [ ] YES
   - [ ] NO

8. **Other comments**

Name of Supervising Scientist (please type or print)

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<th>Signature</th>
<th>Title</th>
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E-mail address, if any

Institution

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PART III – SCHOOL REPORT

Name of Student: ________________________________

PART III - To be filled out by the Science Teacher and endorsed by the Principal

Please use additional sheets if necessary. Completed forms should be given to the student, together with details of academic results, in a sealed envelope and sent together with the Entry Form. Students who do not submit this information will be disadvantaged during the judging and evaluation process due to incomplete information.

1. How long have you known this student and in what capacity? How does this student compare to students you have known during your teaching career?

2. Please summarise fully your observations and inferences that would be useful to the judges in predicting whether this student will become a creative scientist. Relevant topics here include (but are not restricted to) scientific attitude, curiosity, initiative, originality of thought and work habits. (Please be specific).

3. What are the student’s strengths in areas such as peer relationships, outside activities etc?

4. What do you consider the student’s principal weakness?

5. What aspect(s) of the student’s ability, work habits, overall functioning might present difficulties for him/her?
6. How many students are there in this student’s class and what is the student’s estimated class rank?

7. To what extent is the research project the work of the student? Did he/she do all that is claimed in the research report and on this entry form?

I certify that the information given regarding the school records of
(Name of student) ___________________________________________ is correct.

Name of Teacher ____________________________ (Please type or print) ____________________________

E-mail address ______________________________ Signature of Teacher ____________________________ Date ____________________________

Name of Principal ____________________________ (Please type or print) ____________________________

Signature of Principal ____________________________ Date ____________________________
ANNEX 1

SSEF 2009 Categories & Subcategories

ANIMAL SCIENCES
Development
Ecology
Animal Husbandry
Pathology
Physiology
Population Genetics
Systematics
Other

BIOCHEMISTRY
General Biochemistry
Metabolism
Structural Biochemistry
Other

CELLULAR AND MOLECULAR BIOLOGY
Cellular Biology
Cellular and Molecular Genetics
Immunology
Molecular Biology
Other

CHEMISTRY
Analytical Chemistry
Inorganic Chemistry
Organic Chemistry
Physical Chemistry
General Chemistry
Other

COMPUTER SCIENCE
Algorithms, Data Bases
Artificial Intelligence
Networking and Communications
Computational Science, Computer Graphics
Software Engineering, Programming Languages
Computer System, Operating System
Other

EARTH & PLANETARY SCIENCE
Climatology, Weather
Geochemistry, Mineralogy
Paleontology
Geophysics
Planetary Science
Tectonics
Other

ENGINEERING: Materials and Bioengineering
Bioengineering
Civil Engineering, Construction Engineering
Chemical Engineering
Industrial Engineering, Processing
Material Science
Other

ENGINEERING: Electrical & Mechanical
Electrical Engineering, Computer Engineering, Controls
Mechanical Engineering, Robotics
Thermodynamics, Solar
Other

ENERGY & TRANSPORTATION
Aerospace and Aeronautical Engineering,
Aerodynamics
Alternative Fuels
Fossil Fuel Energy
Vehicle Development
Renewable Energies
Other

ENVIRONMENTAL MANAGEMENT
Bioremediation
Ecosystems Management
Environmental Engineering
Land Resource Management, Forestry
Recycling, Waste Management
Other

ENVIRONMENTAL SCIENCES
Air Pollution and Air Quality
Soil Contamination and Soil Quality
Water Pollution and Water Quality
Other

MATHEMATICAL SCIENCES
Algebra
Analysis
Applied Mathematics
Geometry
Probability and Statistics
Other

MEDICINE & HEALTH SCIENCES
Disease Diagnosis and Treatment
Epidemiology
Genetics
Molecular Biology of Diseases
Physiology and Pathophysiology
Other

MICROBIOLOGY
Antibiotics, Antimicrobials
Bacteriology
Microbial Genetics
Virology
Other

PHYSICS AND ASTRONOMY
Atoms, Molecules, Solids Astronomy
Biological Physics
Instrumentation and Electronics
Magnetics and Electromagnetics
Nuclear and Particle Physics
Optics, Lasers, Masers
Theoretical Physics, Theoretical or Computational Astronomy
Other

PLANT SCIENCES
Agriculture/Agronomy
Development
Ecology
Genetics
Photosynthesis
Plant Physiology (Molecular, Cellular, Organismal)
Plant Systematics, Evolution
Other

Adapted from Intel ISEF 2009 – International Rules & Guidelines p.5