

The Ins and Outs of a CSEG Foundation Scholarship...

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In 2006, 24 CSEG Scholarships went to deserving candidates. This article explains how to donate towards a scholarship, apply for a scholarship, successfully be awarded a scholarship and, lastly, let's you hear from the scholarship winners of 2006/2007 academic year.

Donating towards a scholarship

Last year 28 companies, trust funds and individuals donated a total of \$48,000 to be granted to 24 geophysics students across Canada. All scholarships are awarded to the value of \$2,000. Many companies fully sponsor a scholarship with a donation of \$2,000 while others partially sponsor scholarships with donations of \$500 or \$1000. A full list of the contributions can be found in the annual report. If you are interested in contributing and have not been personally contacted by the 2007 CSEG scholarship committee (Rachel Newrick, Warren Pearson and Jessica McPherson), we are gratefully accepting donations. *Please contact a member of the committee or mail funds to the CSEG office with cheques payable to the CSEG Foundation. We ask that you clearly indicate that the funds are for a CSEG scholarship.* All donations are tax deductible and a charitable donation receipt will be issued.

Applying for a scholarship

The 2006 scholarship committee (Erin Lamb Fauquier, Rachel Newrick and Warren Pearson) read many resumes, transcripts and references to determine the most outstanding candidates. The decision is based upon academic performance, financial need, interest in geophysics and extra-curricular activities. But, here is something that you may not know, many applications don't get past the initial pass because they are incomplete or do not appear to qualify. Many of the applications had missing transcripts and/or references. Thus, it is in your best interest to ensure your transcripts have been sent and your referees have sent a positive reference letter on your behalf. Amazingly, many reference letters are received for students who have not applied for a scholarship. Again, only complete applications are considered for scholarship awards. Applications can be found on the CSEG website at www.cseg.ca in the Education section. Although the deadline is 15th July, 2007 we encourage students to submit applications before the full swing of summer!

Being awarded a scholarship

Given the four criteria listed earlier, we need enough information to make a decision, but not too much information that we are swimming in a sea of sentences. For academic performance, the transcript, student's comments on academic success and the references are all considered. Transcripts may be "unofficial" but must have a translation of the grades as each university has a different scheme and, without this, we can not easily compare a 73, B2, NP, 63/100 Carried Forward,

4, 3I continues, CR, and an A-. An 'A' is 90-100 at some universities and 75-100 at others! If there is a 'blip' in the academic record, a small explanation will help the committee understand that the applicant is back on track.

Some of the biographies indicate that the students are not strictly completing a degree in geophysics, but many of the applicants highlighted their interest in geophysics by undertaking term papers, geophysical co-op and summer work terms and/or a desire to pursue graduate studies in geophysics at the end of their undergraduate degree. It is enlightening to read some of the career goals that students have and to feel their commitment to geophysics from their writing alone. Subsequently, we asked all the students to write a brief bio for the RECORDER so that our members can enjoy the enthusiasm.

Extra-curricular activities, as described by the student, are an important part of our assessment as they provide insight that a transcript can not. Over the past few years, we have been thoroughly impressed as to the involvement of the students in their community, on sports teams, with their families and in their general ability to sustain a work - life balance.

The last requirement, financial need, is much harder to evaluate as context is important. We have to consider living situation, income from other scholarships and part time employment, funding from parents etc. Last year, we added a comment to the application requesting specific details of funding if the income was less than \$10,000 / year as we previously received many applications with an income of \$0. We can not compare financial need if the circumstances are omitted. Having income from other scholarships and grants shows us that the applicant is pro-active in funding their education. With regards to employment, we must consider that some students are unable to work due to visa restrictions.

So, put all the information into the hands of the scholarship committee and 24 students were awarded \$2000 each. They are very grateful for the contribution to their education and every single student has taken the time to submit their photo and some words for this article.

Scholarship winners from the 2006/2007 academic year in their own words



Anastasia Vander Most, M.Sc at the University of Ottawa sponsored by EOG Resources: I completed my Hons. B.Sc. at McMaster University in Hamilton, Ontario. It was at McMaster where I began learning and working with rock properties in applied geophysics. Gaining valuable skills through education, lab research and summer work I was employed immediately after finishing my undergrad by a company in Ottawa, as an airborne

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geophysicist and project manager. Five years later, I was working in Toronto with a company that built and sold remote sensing devices. I was travelling the world again, but this time training and trouble shooting Airborne Lidar Terrain Mapper systems (ALTM). Going back to university was not an easy choice, but now in my last year I look back and realise it was the best way to learn new technology and see where the industry is going. This also gave me the opportunity to dedicate time to training and successfully testing for my first degree black belt in karate. With my newly acquired skills of 3D modeling within VMS deposit environments I hope to be employed once again in the exploration industry, ideally, with a company that will allow me to continue to gain experience and knowledge with applied geophysics and its growing technology, tools and applications.



Catherine Alexandrakis, Ph.D. at the University of Western Ontario sponsored by Apoterra: I began my graduate studies in the M.Sc. Geophysics program in January 2006, and transferred into the Ph.D. Geophysics program after completing my first year. I am interested in deep earth seismology and currently working on a velocity model of the outermost core (200 km below the core-mantle boundary) using array analysis techniques applied to the teleseismic *SmKS* phases. After completing my graduate studies, I am looking forward to a career in academics and research. I would like to thank the CSEG Scholarship Committee and Apoterra for awarding my CSEG Scholarship.



Chris Bird, B.Sc. at the University of Saskatchewan sponsored by CNRL: My undergraduate thesis was on AVO modeling of deep crustal reflectors and I am particularly interested in employing geophysical technologies to reduce the risk in petroleum exploration. In my spare time I enjoy playing hockey, golf and chess.



Elissa McColl, B.Sc. at the University of Saskatchewan sponsored by Devon Canada: I decided to major in geophysics when I was in high school and am currently in my final year of my B.Sc. I have spent two summers working for Cameco Corporation's uranium exploration department and upon graduation plan to pursue a career in seismic interpretation for the petroleum industry in Calgary. I would like to thank the CSEG, Devon, Cameco and KEGS for the financial support received during my studies.



Elizabeth L'Heureux, Ph.D. at the University of Toronto sponsored by Boyd PetroSearch / Larry Lines / Northrock and the Chris Elms Trust Fund: I started my Ph.D. in September 2003 on the subject of 3D seismics applied to the exploration for mineral resources in hardrock environments. One part of the project uses borehole log data to assess the degree heterogeneity of various media, mainly underneath meteorite impact craters, which allows us to assess the degree of damage and fracturing induced during the impact. With this information, we can build models of scattering media and simulate their seismic response. The second objective of the project is to assess how well, in these scattering media, we can image a mineral deposit using seismic methods. Once my thesis is completed I look forward to a career as a seismic exploration geophysicist.



Grant Lethbridge, M.Sc. at Memorial University of Newfoundland sponsored by Sigma Exploration and Oyo GeoSpace: I am focused on the geological and geophysical integration and interpretation of the Hibernia Formation within the Terra Nova Oil Field, Grand Banks, offshore Newfoundland. Petro-Canada has provided access to their 3-D seismic survey, petrophysical well data, and core to develop a comprehensive model of the Hibernia Formation. Using algorithms developed by Dr. Hurich I will investigate the statistical character of the formation's seismic response and determine if the statistics aid the differentiation of the Hibernia Formation (i) into smaller sub-units and (ii) from the surrounding lithology. The knowledge gained through this research may be tested in surrounding areas to aid the differentiation and interpretation of geological units based on geophysical datasets. My research is being partially funded through NSERC and Petro-Canada via an NSERC IPS Scholarship.



Iqbal (Ricky) Choong, B.Sc. at the University of Alberta sponsored by PetroCanada: The award that I received from CSEG has been a great encouragement since there is nothing more exciting than getting rewarded for all the hardwork one has put into something, be it school, work or anything. I am very thankful to the CSEG for supporting me to do better in the future as well.



Jane Simmons, B.Sc. at the University of New Brunswick sponsored by an anonymous donor: First, I would like to extend my thanks to the sponsor of this award. I am very grateful for the kind donation that enables me to pursue my academic goals. I am actively involved in several clubs and volunteer organizations at the University of New Brunswick and within the greater Fredericton area. I am a member of Quest 4 Science and UNB Engineers Without Borders. With these groups I have presented at several elementary and high schools

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in the Fredericton area on topics related to women in engineering and science as well as the socio-environmental aspects of engineering. I am also involved with Fredericton Habitat for Humanity and this year have expanded my involvement and am now fundraising co-chair on the executive of the UNB/STU Habitat for Humanity Collegiate Challenge Group. In the future I hope to become a professional engineer and obtain a Masters Degree related to applications of Geophysics and the modeling of hydrocarbon and groundwater flow interactions.



Janette Cullen, Ph.D. at Dalhousie University sponsored by Talisman Energy: After receiving my M.Sc. in Applied Geophysics from the National University of Ireland in 1995, I worked as a geophysical data processor on 2D and 3D seismic survey ships until 2002. My Ph.D. project involves the examination of a number of available seismic datasets to determine geophysical and structural characteristics related to the

formation of gas hydrates on the central Scotian margin. I hope that the new skills of geophysical and geological interpretation which I will gain from this work will assist me in securing a place on one of the vibrant research teams currently examining marine seismic datasets for a wide variety of purposes.



Jason McCrank, M.Sc. at the University of Calgary sponsored by Arcis: My research interests run the lines of resolving AVO effects in thin beds for the characterization of fractures and fluid content. I hope to be involved in a research pilot project that will use time-lapsed seismic monitoring techniques to observe the injection of carbon dioxide into a coal seam for enhanced CBM recovery and carbon sequestration

purposes. I believe that future evolution in the methods and manners of resource exploitation is inevitable and will offer exciting challenges and opportunities for geophysicists. Aside from the rigors of geophysics, I am involved in trip leadership for the Alpine Club of Canada with particular interests in summer mountain climbing and winter ski touring and alpine traverses.



Jeff Durand, B.Sc. Honours at the University of Alberta sponsored by the Bob Won Trust Fund: Some of my personal interests include hiking, skiing, reading, and spending quality time with my fiancé, friends, and family. Academically, I am interested in a broad spectrum of the geophysical sciences. Fundamentally, I am very curious about what kinds of information we can gather from the various methods, and how we can

interpret their meaning within a given geological setting. The two summer internships that I had at Talisman Energy in 2005 and BP Canada Energy Company in 2006 provided me with an opportunity to gain some perspective on seismic interpretation. While I thoroughly enjoyed each of these experiences working with seismic data, I was curious about applications of other geophys-

ical methods. With the hopes of gaining some insights to that end, I have taken a position with Worley Parsons Komex International to start in the fall of 2007. I am very grateful to the CSEG and the geophysics community at large for their generous contributions and encouragement in helping young geophysicists, such as myself, in the pursuit of our interest.



Jeffrey Tan, M.Sc. at the University of Calgary sponsored by Hampson-Russell: I am with the Consortium for Research in Elastic Wave Exploration Seismology (CREWES) and have research interests including seismic reservoir monitoring, seismic processing and interpretation, seismic modeling and migration, as well as petrophysics and well-log analysis. With summer employment, I aim to complete my

Master's degree by the end of December 2007 and be employed full-time in the oil and gas industry immediately thereafter. During my spare time I enjoy long distance running, basketball, badminton, and playing the piano.



Joaquin Aristimuno Sidorenco, Ph.D. at Carleton University sponsored by Nexen Inc.: I completed my undergraduate and M.Sc. at Universidad Simon Bolivar, Venezuela and have work experience at Petroleos de Venezuela, Schlumberger and Shell Canada (summer job). In my spare time, I enjoy mountain biking, kayaking and high mountain hiking. I have climbed the 3rd highest mountain in North America, the

Orizaba Mountain in Mexico, twice and already started my first approaches to the Canadian Rockies. In addition, I have volunteered in an academic program called "Let's talk science" since my first year in the university, where I participate as facilitator in elementary schools, dealing with science topics from biology to geology.



Junwei Huang, Ph.D. at the University of Toronto sponsored by Matrix Geophysical: After I received my B.Sc. degree from Peking University, China, I decided to pursue a career in geosciences. I graduated with a M.Sc. degree from physics department at University of Toronto in 2005 and started my Ph.D. in exploration geophysics. Specifically, I am interested in seismic imaging of heterogeneous media using numerical simulation of seismic wave propagation and my Ph.D. project is to

analyze seismic signatures from gas hydrate reservoirs. Currently I am studying walk-away VSP data trying to make full use of the converted shear wave information.

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Langqiu (Flora) Sun, Ph.D. at the University of Toronto sponsored by Kelman Technologies: My research is, for exploration purposes, to study rock properties through attenuation and velocity dispersion of seismic

waves. This involves time series analysis and seismic data interpretation. Personally, I love traveling, photography, and sports. I am hoping to work as a professional exploration geophysicist in the near future.



Kelley Classen, M.Sc at the University of Calgary sponsored by Nexen Inc.: I completed my B.Sc. (Hons.) in geophysics at the U of C in the spring of 2006. As part of the Fold-Fault

Research Project, I am interested in the incorporation of geological and geophysical datasets in order to interpret and further understand the evolution of complex structural regions. Seismic imaging of complex geology is of particular research interest. In the past I have had the pleasure of working in the exploration industry downtown Calgary as a seismic interpreter. There I gained experience in the many seismic techniques I hope to build on in my future research. Upon graduation, I aspire to work as an exploration geophysicist in a position that utilizes both my past experience and theoretical knowledge acquired during years of studies.



Marc Boulet, B.Sc. (Honours) at the University of Calgary sponsored by Sensor Geophysical: Through
e x p l o r a t i o n
geophysics, I am able to pursue and tie together many of my

varied interests, such as outdoorsmanship, writing, learning, and technology. Fluent in three languages (and working hard on a fourth), my interest in the

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many possibilities of communication has greatly informed my academic interests. In the near future, I will be pursuing an interdisciplinary M.Sc. in Reservoir Characterization in order to gain a greater understanding of geology and engineering and their interrelation with geophysics in the energy industry.



Michelle Martin, M.Sc. at Memorial University of Newfoundland sponsored by GSI Precision: Originally from western Newfoundland, I completed my undergraduate degree in May 2004 in St. John's. I continued with graduate studies at Memorial University of Newfoundland in September 2004. I am one of many students at numerous universities involved in the Pan-Atlantic Petroleum

Systems Consortium (PPSC) at Memorial University under the supervision of Michael Enachescu. My thesis involves structurally mapping of the Hopedale Basin, offshore Labrador using 2D reflection seismic data graciously donated by GSI. With this new seismic data I hope to develop a concept of how the Hopedale Basin and Labrador margin formed by completing structural and tectonic mapping of the region, identifying main rift features and completing reconstructions of lithological units. I also plan to use isopach maps of the Bjarni Formation in conjunction with maturation data from geochemical studies to locate areas of potential hydrocarbon generation. I hope to finish my graduate work in the spring of 2007.

During my undergraduate degree I worked at the Johnson GeoCentre, a new tourist attraction in St. John's showcasing the unique geology of Newfoundland and Labrador. I also worked at Husky Energy in St. John's, NL and most recently, BP Canada in Calgary, AB as a geophysics summer student. These jobs involved creating synthetic seismograms as well as interpretation of both 2D and 3D data followed by reserve calculations. My future aspirations are to continue with exploration work in different geographical locations but hopefully return to Newfoundland and Labrador to promote its hydrocarbon potential. In my spare time I enjoy outdoor activities such as skiing, hiking, canoeing, and camping and more recently have started English and Western horseback riding. I am also a volunteer with a local beagle rescue organization, Beagle Paws.



Mostafa Naghizadeh, Ph.D. at the University of Alberta sponsored by CGG and the Chris Elms Trust Fund: I obtained my B.Sc. degree in mining engineering at the University of Kerman (Iran) and subsequently completed my M.Sc. in geophysics at the Institute of Geophysics, University of Tehran (Iran). My Ph.D. research area is mainly focused on seismic data reconstruction and interpolation, using statistical

and physical approaches. For extracurricular activities I enjoy hiking, reading, and traveling. Further, I am an avid sports fan and football (soccer) player.



Paige Snelling, B.Sc. at Queen's University sponsored by Suncor Energy Trust Foundation: Throughout my academic career, I have become very interested in seismology, tectonics and seismic interpretation related to oil and gas. I am currently planning on pursuing a master's degree in the geosciences to explore these interests. As for career aspirations, I hope to combine my background in geology, engineering and geophysics into an exciting career in the field of exploration geophysics. Outside of the classroom, my personal interests include photography and art.



Renee Burton-Ferguson, Ph.D. at Memorial University of Newfoundland sponsored by Geo-X: My thesis concerns the seismic stratigraphy and structure of the Tertiary sequence in the Orphan Basin. My education at Memorial includes M.Sc. (2002) and B.Sc. (Honours) (1998) degrees in geology. I have worked with a variety of geophysical data including 2D and 3D seismic, multibeam bathymetry, backscatter and side scan sonar, and have participated in sea-surveys in offshore Turkey, offshore Trinidad and on the Grand Banks. I am particularly interested in exploration and development of deepwater systems, and look forward to a long, fruitful career filled with many new and challenging data sets. I reside with my young family in St. John's, Newfoundland.



Sandor Sule, Ph.D. at the University of Saskatchewan sponsored by Popilchak Trust Fund: I have also studied at different universities in Hungary (for Masters and Ph.D.), the Netherlands and Russia (in Moscow). At the moment this is my 12th year in academia. Concerning my professional background, I have worked as a seismic interpreter, and earlier in seismic data processing, methodological development, gravity and electromagnetic exploration. Before coming to Canada, as a seismic interpreter, I mainly worked for the Hungarian Oil Company as chief geophysicist at the Division of International Exploration with different projects in Italy, Russia, Bashkiria and in the Persian Gulf in Qatar on offshore territories. These projects were operating in conjunction with ChevronTexaco, Enterprise and other oil companies.

My present research topic, which I have been working on for the last 4 years now, is a regional seismic (2D/3D) and petrophysical (well-logging) investigation in the South-Eastern Saskatchewan part of the Williston Basin. The international Weyburn CO₂ sequestration project of the International Energy Agency is funded by different oil companies operating in Canada. I have been both author and co-author of twelve presentations in this topic, presented at conferences in Canada, Italy and Japan. Based on this research and publications I won the SEG (as well as the CSEG) scholarships for the 2006-2007 academic year. In the department I have had the opportunity to teach Seismic Methods, Seismic Sequence Stratigraphy and Seismic

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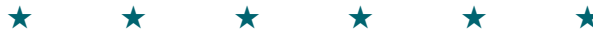
Interpretation in the Petroleum Geology class for undergraduate students. I also compiled a 100 page manual about these topics. At the annual Western Inter-University Geological Conference last year (in Saskatoon) I won the second prize and this year (in Calgary) I won the first prize with my presentations. The expected date of completion of my Ph.D. is about third-fourth quarter of 2007 and after that I would like to move back to oil industry as exploration geophysicist/interpreter.



Sergey Samsonov: Ph.D. at the University of Western Ontario sponsored by GEDCO and John Peirce: I am working towards a Ph.D. in geophysics and environmental science. My thesis research involves utilizing GPS and differential InSAR data for studying of surface deformation. I received my M.Sc. in physics in 1999 from Moscow State University and then worked as a processing geophysicist and later as a scientific computer programmer in the United States. I am planning to graduate this spring and pursue a career in exploration geophysics.



Yongwang Ma, Ph.D. at the University of Calgary sponsored by Zokero: I graduated in 1991 with a B.Sc. in geophysics from China University of Geosciences, Wuhan, China, came to Canada in January 2001 and obtained my M.Sc. in Geophysics in 2003 from Queen's University. I started my Ph.D. at the University of Calgary in September 2004 and am now working with my thesis supervisor, Dr. Gary F. Magrave, focusing on seismic depth imaging using the Gabor imaging theories. I have had some excellent research results and presented (or will present) them at the CSEG (2006, 2007), SEG (2006) and EAGE (2007) conferences. I am in my third academic year of study and will graduate within a year. My research interests are in areas related to seismic imaging. In my spare time, I love to skate, play basketball and participate in other activities unrelated to my academic life. *R*



Canadian Heavy Oil Association Award

The Canadian Heavy Oil Association has instituted an award for the best graduate thesis proposal and academic achievement. This award carries \$3000 and a certificate.

The first recipient of this award is Hesham Moubarak, from the University of Calgary.



From left: John Newman-membership/PR CNRL, Hesham Moubarak, Larry Lines.



John Newman-membership/PR CNRL, Hesham Moubarak