Message

From: Mehta, Ajay P SIEP-PTI/DL [/O=SHELL/OU=MSXSCC/CN[redacted]
Sent: 3/10/2017 8:37:46 PM
To: Patterson, Robert W GSUSI-PTE [redacted]@shell.com]; Culpepper, Bruce B SHLOIL-HR/CCUS [redacted]@shell.com]
CC: Yuri-Sebregts-SI GLOBAL [redacted]@shell.com]; Golightly, Niel L SHLOIL-HR/CCUS [redacted]@shell.com]; Schindler, Liesl R GSNL-PTI/[redacted]@shell.com]; Gregg, Lindsey M SI-ERPT [redacted]@shell.com]
Subject: RE: Research Collaboration Agreement UC Berkeley

Robert – thank you for your note and best wishes. We indeed had a successful launch of the new research collaboration in Berkeley yesterday.

We asked Berkeley to hold-off on the press release until Monday morning since the oil-sands divestment was also announced the same day and we also needed to get a few things cleared by IR. We have now received full internal clearance for the press release.

I will be happy to provide periodic updates and also welcome visits by the US ETP leadership team to the West Coast as we have a number of research activities going on there right now across the new energies space.

As requested, I have provided a few speaking points for Bruce on the collaboration. Please let me know if you need any further information.

Best regards,
Ajay

Speaking Points on Shell research collaboration with Energy Biosciences Institute, UC Berkeley

- This new research agreement is aligned with the RDS Technology Strategy refresh leading to the creation of the Long Range Research program. It is focused on supporting fundamental research and develop innovative technology solutions to support the ongoing energy transition.
- Shell is keen support work at leading institutions around the world tackling the big challenges associated with the energy transition. We are supporting research that will enable us to harness renewable energy sources including solar and wind to create the energy carriers of the future, develop new options for grid-scale advanced energy storage, and find new end-uses for natural gas that will not only support the energy transition but also be potentially used to create new chemical products. We are interested in pursuing the major advances in computational material science and chemistry, including the application of machine learning methodologies, and leverage significant advances in the biosciences to harness solar energy. UCB, LBNL and UIUC bring leading academics in each of these areas that form the basis for our Long Range Research program.
- This research agreement enables Shell to access three major institutions as the Energy Biosciences Institute (EBI) includes the University of California, Berkeley (UCB), Lawrence Berkeley National Laboratory (LBNL) and University of Urbana Champaign (UIUC).
- EBI was created with substantial funding from BP, who had committed to spending $500 million over 10 years to establish this institution with a sole focus on biofuels. They had already spent >60% of that commitment before they wound it down to a very modest investment in one area of biofuels research following their financial pressures post-Macondo. EBI has therefore re-launched itself with the Shell collaboration and it now includes research across all aspects of new energies and not just limited to biofuels. We are taking advantage of the huge sunk costs already borne by BP to build state of art facilities to create EBI and are therefore able to significantly stretch our investment to drive fundamental research and not on infrastructure costs.
- Our $25 million research agreement (to be spent over 5 years) is similar to our investment at MIT where we have a similar open-collaboration platform for research across the energy spectrum. The Berkeley plan is currently focused on Long Range Research, but it is not limited to that as we can tap into any other area of research of interest to Shell under the terms of the agreement.
- We have plans to "embed" Shell scientists at UCB and likewise invite faculty to spend time at Shell's research hub to further foster deep collaboration.

- Shell sees this as a win-win collaboration for both sides and we expect it to foster a whole new level of open innovation and scientific research in areas that will enable more affordable and cleaner energy solutions for the future.

From: Patterson, Robert W GSUSI-PTE
Sent: Thursday, March 09, 2017 12:44 PM
To: Mehta, Ajay P SIEP-PTI/DL; Culpepper, Bruce B SHLOIL-HR/CCUS
Cc: Yuri-Sebregts-SI GLOBAL; Golightly, Niel L SHLOIL-HR/CCUS; Schindler, Liesl R GSNL-PTI/I; Gregg, Lindsey M SI-ERPT
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Ajay

Thank you for sharing the information. We wish you success in this key collaborative effort.

Given the profile of this work, please provide Bruce some speaking points regarding the work and send periodic updates to him regarding progress. At some point, he and perhaps others sponsoring the Energy Transition work in the US may wish to visit EBI.

Best regards
robert

From: Mehta, Ajay P SIEP-PTI/DL
Sent: Wednesday, March 08, 2017 2:41 PM
To: Culpepper, Bruce B SHLOIL-HR/CCUS; Patterson, Robert W GSUSI-PTE
Cc: Yuri-Sebregts-SI GLOBAL; Golightly, Niel L SHLOIL-HR/CCUS; Schindler, Liesl R GSNL-PTI/I; Gregg, Lindsey M SI-ERPT
Subject: Research Collaboration Agreement UC Berkeley

Bruce and Robert,

Yuri asked me to let you know that we have recently concluded contractual negotiations with the Energy Biosciences Institute (EBI) based at the University of California, Berkeley (UCB), to launch a significant new collaboration in Long Range Research (LRR) and New Energy Technologies. The headline size of the research agreement is $25 million over 5 years.

Yuri and a few of us will be in Berkeley tomorrow to formally launch this research agreement and for a ceremonial signing of the same. Our ER team has been working with counterparts at UCB on a press release to announce the agreement tomorrow (contingent upon receiving the requisite internal approvals). The draft of the UCB release is included for your reference.

At your convenience, I will be happy to provide you with a more in-depth overview of this new collaboration and other significant activities within the United States related to the LRR-New Energies technology platform. Please let me know if I can provide any additional information at this time.

Thank you for your support.

Best regards,
Ajay

Ajay Mehta, PhD
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