From:
 Chen, Lily (Fed)

 To:
 Clark, Carol A. (Fed)

**Subject:** RE: 60NANB17D184 - Budget modification request from Univ of South Florida

**Date:** Tuesday, February 19, 2019 3:23:00 PM

Hi, Carol,

Thanks. Based on the answers to our questions, we can approve the modification.

Lily

From: Clark, Carol A. (Fed)

**Sent:** Tuesday, February 19, 2019 3:13 PM **To:** Chen, Lily (Fed) < lily.chen@nist.gov>

Subject: RE: 60NANB17D184 - Budget modification request from Univ of South Florida

Hi Lily,

Dr. Biasse provided the following responses to our questions:

1. Explain the specific role the newly introduced research technician/postdoctoral scholar will play in the project to achieve the objectives in the original proposal.

The newly introduced research technician/postdoctoral scholar is an expert in quantifying the computational hardness of the problems serving as a basis for quantum-safe cryptosystems. He will support the PI in providing mathematical models that will lead to security recommendations for the ongoing NIST standardization process of Post Quantum Cryptography (PQC). His expertise completes that of the PI whose research is more focused on the asymptotic estimates of the hardness of the computational problems that are described in the proposal. The newly introduced research technician/postdoctoral scholar will provide essential insight regarding the specific parameters NIST should recommend in the standardization process of PQC while the PI will identify the families of problems that are suitable for cryptography based on their asymptotic behavior.

## 2. In which aspects will these positions contribute?

These positions (which correspond to the same person: Benjamin Pring) will contribute in the aspects pertaining to the analysis of the concrete security offered by the Post Quantum schemes studied as part of the original project.

3. Which conferences are planned for attendance with the increased travel budget, and what are the expected presentations?

The conferences that are planned with the increased travel budget are the ones where the research technician/postdoctoral scholar will attend to present their findings. For example, in

February 2019, he has already attended a workshop at the American Institute for Mathematics on "Quantum Algorithms for Analysis of Public-Key Crypto" where he gave presentations and discussed the work related to the project with world-class experts on the topic. In addition, he is expected to present his recent work "Improvements to low-qubit quantum resource estimates for quantum search" at the International Workshop on Codes and Cryptography in April in France. This work, which is fully in line with the objectives described in point 1) and 2) will then be published in a special issue of the prestigious Designs Codes and Cryptography journal.

We expect that the future work of the research technician/postdoc will be presented in the international top-tier cryptography conferences such as *Crypto, Eurocrypt, Asiacrypt,* according to the description we made in the revised budget.

Please provide your thoughts...

Thank you,

Carol

**From:** Chen, Lily (Fed)

**Sent:** Tuesday, February 19, 2019 12:30 PM **To:** Clark, Carol A. (Fed) < <u>carol.clark@nist.gov</u>>

Subject: RE: 60NANB17D184 - Budget modification request from Univ of South Florida

Hi, Carol,

Thanks. Here are few questions I think we might ask before I approve the modification request.

- 1. Can you please clarify the specific role the newly introduced postdoctoral scholar will play in the project to achieve the objectives? In which aspects the postdoc can contribute?
- 2. Which conferences are you planned to attend for increased travel budget and what are the expected presentations?

Lily

From: Clark, Carol A. (Fed)

**Sent:** Tuesday, February 19, 2019 11:26 AM **To:** Chen, Lily (Fed) < lily.chen@nist.gov>

Subject: RE: 60NANB17D184 - Budget modification request from Univ of South Florida

Lily,

Let me know if there is anything else I can provide.

Thanks,

Carol

**From:** Chen, Lily (Fed)

**Sent:** Tuesday, February 19, 2019 11:22 AM **To:** Clark, Carol A. (Fed) < <u>carol.clark@nist.gov</u>>

Subject: RE: 60NANB17D184 - Budget modification request from Univ of South Florida

Hi, Carol,

Can you please find me the grant proposal or even a progress report so that I can see how the added post doc can help in year 3?

Thanks,

Lily

From: Clark, Carol A. (Fed)

**Sent:** Tuesday, February 19, 2019 9:30 AM **To:** Chen, Lily (Fed) < <u>lily.chen@nist.gov</u>>

Subject: FW: 60NANB17D184 - Budget modification request from Univ of South Florida

Hi Lily,

Would you possibly have a few minutes to discuss the budget revision request from Univ of South Florida with me sometime today?

Carol

From: Clark, Carol A. (Fed)

**Sent:** Thursday, February 14, 2019 4:00 PM **To:** Chen, Lily (Fed) < lilv.chen@nist.gov>

Subject: 60NANB17D184 - Budget modification request from Univ of South Florida

Hi Lily,

A budget revision request has been received from the Univ of South Florida.

Summarized changes include:

## Personnel/Fringe:

Original proposal included the PI, and a Graduate Student (Ph.D.) Personnel funds from year 1 & 2 were not fully utilized. A research technician and Postdoctoral Scholar were requested for year 3. It's not clear to me how these positions would enhance the position originally requested.

## Travel:

Travel allowance of \$7,000 for the postdoctoral scholar. Overall the travel increased from \$18,000 for the award to \$28,537.

Subaward to Florida Atlantic Univ:

Total remains the same – year two was decreased and year three was increased by \$5,637.

The original budget and budget narrative, along with the revisions are attached. The CV for the postdoctoral scholar is also attached.

Please review and provide your thoughts. This request came in during the first week back from the furlough and was originally under review by the Grants Office.

I'm happy to ask some clarifying questions to be sure ITL is comfortable with the request, and to ensure the budget revision represents the best use of funds. In particular revisions that increase the budget for the final year of an award warrant a second look to be sure the revision is supported and not simply "spending down the award".

Please give me a call if it is easier to discuss. I will be teleworking tomorrow 2/15. (b) (6)

Thank you,

## Carol Clark

Administrative Specialist/Federal Program Officer Information Technology Laboratory National Institute of Standards and Technology

Phone: (301) 975-2239 Email: carol.clark@nist.gov