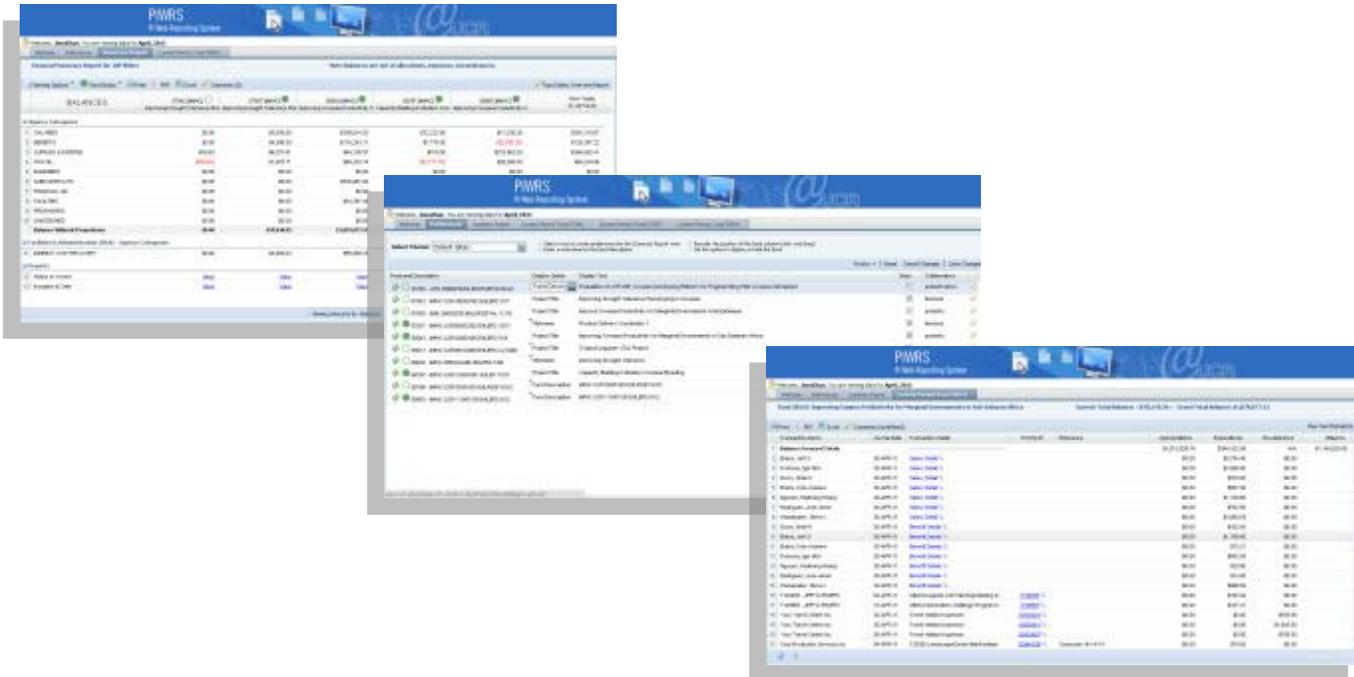# Principal Investigator Web Reporting System

## UCR Computing & Communications



"*The PIWRS is an excellent web-based tool developed specifically for our campus Principal Investigators (PIs). It is important for PIs to have access to consistent and reliable monthly contract and grant reports in order to perform their financial management responsibilities. The monthly expenditure activity by PIWRS is presented in a succinct style with the ability to easily drill into salary, purchase order, and travel details. Although the PIWRS is a standardized report, the system offers the PI the option to customize their report with the system's various features and views. As the campus Controller, I fully support PIWRS.*"

    - Associate Vice Chancellor Bobbi McCracken, Finance & Business Operations

"*The PI Web Reporting System is a wonderful step forward for the UC Riverside campus. The first phase of the deployment allows PIs to review fund balances online and drill into detailed information as needed (down to actual Purchase Orders, Travel expenditures, and salary details). But most importantly, the PIWRS serves as a foundation for UCR's new Annual Salary Certification system that is a replacement for UCR's paper based Effort Reporting system. Notably, we have just this Spring received approval from the US Department of Health and Social Services (our cognizant agency for federal funding) to implement this replacement for Effort Reporting in large measure because we have the information system and database already implemented so that we will be able to implement and closely audit the success of this new Payroll Certification system.*

*Using this PI Web Reporting System, from a single web interface, campus PIs can view salary and benefit details, mark monthly reports as reviewed, and then perform Annual Salary Certifications (the budget review*

*period is automatically presented to PI from data in the campus financial system).  Our hope is that the PIWRS and the Annual Salary Certifications will provide greater accountability, accuracy, efficiency, and transparency as well as provide better alignment with federal financial status reporting.  Again, the PIWRS is a marvelous step forward for UCR, and depending on the outcome of the Federal Demonstration Project, for all of UC as well.*

*The PI Web Reporting System is a wonderful addition in making life easier for the PIs, the Office of Research, and our auditors."*

> *- Vice Chancellor of Research, Charles Louis*

## Background

The PI Web Reporting System (PIWRS) is a campus reporting tool that generates monthly contract and grant financial reports for Principal Investigators (PIs). This reporting system, initially released in 2010, presents summary and detail reports designed to facilitate the review of month-to-month expenditures and overall fund balances. PIWRS is intuitive and easy to use, and transparently presents the balance of each contract and grant fund directly to the responsible PI.

The PI Web Reporting System provides the foundation for a Federal Demonstration Project (FDP) to replace the quarterly effort reporting process (known as the Annual Salary Certification system). Effort reporting, which is mandated by the federal government, requires that PIs must certify the amount of effort expended on a particular contract or grant. The notion of effort is nebulous, not well understood, and can potentially have different meanings to different people. In response to this, UCR and UCI have put forth a proposal and received approval to satisfy the effort reporting requirement via payroll certifications. For UCR, the ability to perform payroll certifications was only possible because of the PI Web Reporting System.

In summary, the PIWRS based Annual Payroll Certifications will replace UCR's paper-based, quarterly effort reporting process. A second PIWRS tool, the PIWRS Monthly Payroll / Expenditure Review system, is a system for PIs to review contract and grant expenditures regularly throughout the year so errors can be promptly detected and corrected.  These monthly reviews will facilitate the completion of the Annual Payroll Certifications.

*Summary Report – PIWRS (click on fund to drill into balances)*

| Financial Summary Report for ▮▮▮ ▮▮▮▮, Period 10, 2010 | | | | | Note: Balances are net of all |
|---|---|---|---|---|---|

Viewing Options ▾   ● Fund Status ▾   🖶 Print   📄 PDF   Excel   ✎ Comments (0)

| BALANCES | 25165 [USDAA] ●<br>Evaluation of UC... | 57842 [IMWC] ●<br>Improving Droug... | 57850 [UEM] ●<br>Improve Cowpea ... | 57857 [IMWC] ●<br>Improving Droug... | 58542 [IMWC] ◕<br>Improve Cowpea ... |
|---|---|---|---|---|---|
| **Agency Categories** | | | | | |
| 1  SALARIES | $0.00 | $0.00 | $0.00 | $5,937.68 | ($16,082.39) |
| 2  BENEFITS | $14,000.00 | $0.00 | $0.00 | $3,286.45 | ($11,084.54) |
| 3  SUPPLIES & EXPENSE | $0.00 | $790.20 | $1,131.04 | $21,862.39 | $43,943.44 |
| 4  TRAVEL | $0.00 | $0.00 | $2,386.51 | $1,273.85 | ($293.42) |
| 5  EQUIPMENT | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 |
| 6  SUBCONTRACTS | $0.00 | $18,123.00 | $0.00 | $0.00 | $0.00 |
| 7  FINANCIAL AID | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 |
| 8  FACILITIES | $0.00 | $0.00 | $0.00 | $0.00 | ($1,870.42) |
| 9  PREAWARDS | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 |
| 10  UNASSIGNED | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 |
| **Balance Without Projec...** | **$14,000.00** | **$18,913.20** | **$3,517.55** | **$32,360.37** | **$14,612.67** |
| **Facilities & Administration (F&A) - Agency Categories** | | | | | |
| 11  INDIRECT COST RECOV... | $0.00 | $158.04 | $703.52 | $6,472.49 | $1,461.27 |
| **Reports** | | | | | |
| 12  Notice of Award | View | View | View | View | View |
| 13  Inception to Date | View | View | View | View | View |

*Monthly Detail Report – PIWRS (click linked items to drill into details)*

📁 Welcome, **Leonard**, You are viewing data for **April, 2010**

| Welcome | Preferences | Summary Report | **Current Period: Fund 2▮▮▮** ✕ |
|---|---|---|---|

Fund 2▮▮1: Combating the threat of the plant pathogenic bacterium Xyella fastidiosa     Current Total Balance: <$97,550.06>  Grand Total Balance: $369,512.32
using genomce-based methods linked to national and international monitoring

🖶 Print  📄 PDF  Excel  ✎ Comments (0)                                                                 View Fun▮

| | Transaction Descr | Journal ... | Transaction Detail | PO/Trip ID | Reference | Appropriations | Expenditures | Encumbrance | |
|---|---|---|---|---|---|---|---|---|---|
| 12 | M▮h ▮▮▮▮▮ ▮▮▮▮ ▮▮ | 30-APR-... | Staff Benefits🔍 | | | $0.00 | $33.71 | $0.00 | |
| 13 | R▮▮▮▮, ▮▮▮▮▮▮ ▮▮ | 30-APR-... | Staff Benefits🔍 | | | $0.00 | $555.37 | $0.00 | |
| 14 | R▮▮▮▮, ▮▮▮▮▮▮ ▮▮ | 30-APR-... | Vacation Taken🔍 | | | $0.00 | ($353.46) | $0.00 | |
| 15 | R▮▮▮▮, ▮▮▮▮▮▮ ▮▮ | 30-APR-... | Vacation Accrual🔍 | | | $0.00 | $121.36 | $0.00 | |
| 16 | #300033266 - Daily Mileag... | 02-APR-... | Travel related expenses | | | $0.00 | $48.91 | $0.00 | |
| 17 | #300033266 - Daily Rental ... | 02-APR-... | Travel related expenses | | | $0.00 | $21.31 | $0.00 | |
| 18 | Supershuttle La, Supershut... | 19-APR-... | Travel related expenses | 10283853🔍 | | $0.00 | $0.00 | $39.00 | |
| 19 | | 30-APR-... | went to usda/ parlier to pick up ... | T140762🔍 | | $0.00 | $225.50 | $0.00 | |
| 20 | Sigma Aldrich Inc | 02-APR-... | 720280 Lab Supplies Other | 10277657🔍 | SUPPLY | $0.00 | $86.99 | $0.00 | |
| 21 | Sigma Aldrich Inc | 02-APR-... | 720280 Lab Supplies Other | 10278031🔍 | Oligos | $0.00 | $245.40 | $10.44 | |
| 22 | Sigma Aldrich Inc | 02-APR-... | 720280 Lab Supplies Other | 10274195🔍 | SUPPLY | $0.00 | $33.82 | $0.00 | |
| 23 | Fisher Scientific Company | 05-APR-... | 720280 Lab Supplies Other | 10275664🔍 | SUPPLY | $0.00 | $162.20 | $0.00 | |
| 24 | Sigma Aldrich Inc | 05-APR-... | 720280 Lab Supplies Other | 10274844🔍 | Oligos | $0.00 | $302.01 | $0.00 | |
| 25 | Fisher Scientific Company | 05-APR-... | 720280 Lab Supplies Other | 10279816🔍 | SUPPLY | $0.00 | $19.02 | $0.00 | |
| 26 | Discount Earned | 05-APR-... | 720280 Lab Supplies Other | | | $0.00 | ($3.33) | $0.00 | |
| 27 | HAMID R AZAD | 08-APR-... | 720290 Landscape/Grnds Mat/... | | | $0.00 | $2,470.80 | $0.00 | |
| 28 | Storehouse Sale Ticket | 09-APR-... | 720450 Tools Non-Inventory | | | $0.00 | $4.67 | $0.00 | |

## Highlights

PIWRS is the principal tool in use at UCR for tracking financial activity on contract and grant funding sources. Its importance can be further demonstrated by the following highlights.

- PIWRS is automatically available to every Principal Investigator via UCR's single-sign-on portal environment: R'Space.
- The user interface is developed with open-source javascript libraries.
    - Back-end SQL code is abstracted from the user interface and separately maintained.
- PIWRS is available to all campus departments.
    - It monitors all contract and grant funds.
- Enables direct communication/connection with the Principal Investigator
    - PIWRS provides scheduled e-mail alerts that give details on monthly statements, fund balances, expenditures, and projections.
- PIWRS supports optional roles
    - Principal Investigator is able to assign Coordinator and Collaborator roles
        - Coordinators are users which work in the same accountability structure and are given access to make projections on the monthly reports.
            - Projections can help make the report more accurate by providing forecasts of balance expenditures or profits. The optional coordinator role allows for better oversight of fund expenditures.
        - Collaborators are members of the campus community who work very closely with the Principal Investigator. The collaborator is able to view and get a better understanding of their related fund.
- PIWRS utilizes an intuitive Web2.0 interface build with open source Java script libraries
    - The improved interface allows for greater customization and personalization of the system based on individual preferences. The user is able to:
        - Nickname individual funds
        - Control where and how funds display on the report
        - Apply color themes
- PIWRS is able to provide a wide range of details
    - The Principal Investigator is able to view report elements that range from comprehensive fund summaries to individual purchases. PIWRS gives the user control over what they would like to view.

## Technical Highlights:

- The PIWRS utilizes UCR's standard Oracle/Solaris enterprise platform and leverages UCR's various transaction processing systems and data stores include the PeopleSoft Financial System, financial and budgetary data marts, payroll expense data mart, research administration data mart, and directory and LDAP attributes.

- The PIWRS utilizes Central Authentication Services (CAS – open source) for user authentication and the Enterprise Access Control System (EACS) for departmental user authorization and the UCR Attribute server for faculty authorization.

- The user interface is built use the open source Ext JS (Java Script) Libraries.  The UCR UI code is available for re-use throughout the system if desired / appropriate.

- The system uses template-based automated email notifications.

## Implementation Timeline

- Phase 1 – Core Functionality
  - Fall 2011. Campus implementation of the PIWRS system that includes Summary and Detail reports designed to facilitate the review of month-to-month expenditures and overall fund balances.
- Phase 2 – Monthly Expenditure Review System
  - Spring 2011. Phase two will add new functionality to the payroll review aspect of the PIWRS. Known as the Payroll Overview Report or "drill down," this process allows faculty to review salary and benefit information with greater precision by providing greater detail to the salary and benefit expenditures, and how those expenditures compare with various funds.
- Phase 3 – Annual Payroll Certification System
  - Spring 2011. Phase three will implement an overhaul of the Annual Payroll Certification System (APCS). The APCS is a formal process mandated by the U.S. government that requires all Principal Investigators to annually certify that all payroll salaries were paid fairly, and that contracts and grants were reasonably spent. Previously, the APCS were usually done quarterly and filled out on paper by the Principal Investigators. PIWRS changes this lengthy process by producing all the records electronically.
    - The U.S. government has given special permission, known as a Federal Demonstration Project (FDP), to two UCs (UCI and UCR) to implement this new APCS, and UCR is implementing the new electronic method through PIWRS.

## Responses

*"With the campus-wide implementation of the PI Web Reporting System (PIWRS), all PIs are now, for the first time, assured of receiving monthly financial statements of their contract and grant funds that correctly report their current fund balances as well as their current month expenses. As an organizational chief financial officer, the assurance that all PIs will receive their monthly financial reports is extremely comforting. In the past it has happened from time to time that faculty does not always receive accurate and timely financial reports. With the advent of PIWRS, this can no longer happen because they are automatically generated each month."*

- Millie Garrison, Chief Financial and Administrative Officer, College of Natural and      Agricultural Sciences

## Project Members

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**Project Site –** http://piwrs.ucr.edu

**Support Site –** http://cnc.ucr.edu/piwrs

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