

## The Role of Postdoctoral Scholars Associations in the Times of Unionization

Vuk Uskokovic (University of California, San Francisco, CA, USA)

### Abstract

The recent unionization of postdoctoral scholars at the University of California (UC) has attracted much attention due to the following reasons: a) the UC comprises the largest pool of postdoctoral scholars in the US; b) postdoctoral community at the UC has become the third and the largest union of postdoctoral scholars in the world; c) postdoctoral scholars are an unusually socially, culturally and nationally diverse category, with around 70 % being foreign citizens. Since there is a prospect that postdoctoral scholars at other universities may follow the same path and choose to unionize, learning from this particular case of unionization will be of crucial interest for many other postdoctoral scholars associations (PSAs). One of the consequences of unionization has been depriving the UC PSAs of their keenness to address issues that pertain to the basic qualities of postdoctoral appointments, including the conditions of employment. The causes of this apparent paradox are examined and solutions on how to restore the political relevancy of the PSAs in the context of unionization are offered. The main conclusion is that the PSAs should act so as to increase the communication between the union and the University. Such a channeling role of the PSAs may erase many obstacles that seem to be blocking the road for their development. The PSAs may thus become rejuvenated and regain the role of powerful political platforms for addressing postdoctoral concerns from neutral and independent perspectives.

**Keywords:** Academia, Mentorship, Postdoctoral Scholar, Unionization, University of California.

### Introduction: historic overview and the reasons to form a union

“You may think that the pecking order at our universities starts with the tenured professors and continues with untenured professors, postdocs, graduate students, and undergraduates. But that is poppycock. If one considers official rights, legal protection and professional representation, the true power structure is tenured professors, untenured professors, undergraduates and graduates, with postdocs at the bottom... On the other hand, insecurity and vulnerability are the sisters of development and evolution – in yeast, fruit flies, as well as human beings” (Schatz 2004). So says Gottfried Schatz, echoing a statement of fact which presents the starting point of this discourse: namely, postdoctoral scholars, a.k.a. postdocs, have long been an underrepresented professional category at universities.

Yet, despite the largely underappreciated status that postdocs have traditionally held, their number in the US has been steadily rising since 1974 when the National Institutes of Health (NIH) awarded the first postdoctoral fellowships under the National Research Service Act (Singer 2004). The National Science Foundation (NSF) survey conducted in 2004 yielded an estimate that about 60,000 postdocs are in the US alone, whereas the same number increased to almost 90,000 in the survey published in 2010 (National Science Foundation 2010). According to Stanford University officials, over the last decade the number of postdocs on their campus surged 37 %, from 1,281 in 2000 to 1,754 in 2010 (Sullivan 2010). On top of that, there is little chance that this trend will be usurped in the near future. At many universities, including the University of California (UC) schools, recruiting a postdoc is nowadays more profitable for principal investigators (PIs) than hiring a foreign grad student (\$42k for a domestic grad student; \$45k for a Postdoc; \$57k for an international grad student for UCSF for Fall 2010) (Calarco 2010). Hence, in view of the expected increase in the federal funding of research followed by the economic recovery, the number of grad students may not increase,

whereas the number of postdocs is expected to go up even more.

The steady rise in the number of postdoctoral appointments in the US indicates the rising importance of postdocs for the scientific progress of this country. There are many reasons for which postdocs can be considered the driving wheels of research at most universities. More experienced than grad students, postdocs are meant to more creatively contribute to research. Quite often, they mentor students, initiate important collaborations, write papers and grants, attracting large pools of money to their advisors and the university. On the other hand, we are in the midst of a trend of prolonging the postdoc contracts as it is harder and harder to find an independent position, which these temporary appointments were initially meant to provide a step to (Rohn 2011). As pointed out by Betsy Mason in 2004, “These young researchers represent the engine room of US science, responsible for most of the hands-on work that underpins papers published each week in leading journals. And if the most talented of them are forced to quit academia for greener pastures, they will take with them the vibrancy that drives US scientific enterprise” (Mason 2004). According to the current statistics, 80 % of postdocs will never make the next academic step and receive a professorship (Fuhrmann 2010), and this trend is supposed only to get worse in light of the ongoing financial crisis and stagnant NIH funding (Semeniuk *et al.*, 2011). The doubling of the latter in the period from 1998 to 2003 (Hindery 2009) naturally provided seed funding for the sprouting of new labs, entailing a subsequent boom in the number of postdoctoral appointments throughout the country. However, with the federal funding stagnating, the academic pyramid has been widened at its bottom and narrowed towards its peak, leading to the current state of affairs whereby the supply-and-demand at the postdoc-faculty transition stage is apparently out-of-phase in disfavor of postdocs and soon-to-be PhDs (Taylor 2011).

No wonder then that postdocs are these days perplexed about the real purpose of the postdoctoral experience. This confusion is also reflected on the benefits that postdocs receive during their appointments. According to the 2004 Sigma Xi survey, the median postdoc salary was nearly half that of non-postdoc PhD holders (Davis 2005). Even the median salary of BS degree holders was

by more than 15 % higher than that of postdocs. Hence, it was concluded that the average postdoc wage was \$14.90 on hourly basis, which was comparable with what janitors at Harvard earned: \$14.00 per hour. Postdocs are also some of the rare professional categories in the academic milieu that are not subject to mandatory annual salary raises (Kreeger 2004). At some universities, including the UC, postdocs are considered as trainees and as such excluded from various employment benefits - social security contributions, eligibility for retirement plans, terminal vacation pay and vacation leave rollover (Friesner 2009) - while on the other hand their official status for taxing purposes typically corresponds to regular staff members of universities. Moreover, postdocs have little rights to chose the public release form of the results of their work, despite the advice given by the National Research Council that demands from PIs "not to publish results that did not agree with the adviser's work" are not acceptable (National Research Council 2000). These are some of the reasons that contribute to the sentiment shared by many postdocs these days: "We are nothing but slaves of the modern society". The disappointment and the confusion about the whole point of being a postdoc are thus steadily rising (Uskoković 2009b).

The inadequate representation coupled with the trend of increasing the number of postdocs inevitably calls for more significant legislation for postdoc rights. If not for the sake of improving the statuses of postdocs *per se*, the threat that the academic necessity of postdoc positions entailed by low salaries, fewer benefits and insecure working conditions may discourage doctoral-level careers in general may be expected to lead to a change of the heart in the way the postdocs are treated in a foreseeable future.

The last 10-15 years have already witnessed numerous improvements along this line. In 1995, the first Postdoctoral Scholars Associations (PSAs) began to sprout across the American universities, involving postdocs and their PIs into discussions over how to improve the quality of their communication, working conditions and the overall career outlook. University of California, San Francisco (UCSF) PSA was founded as one of the first in the country with the mission to "foster a sense of community among UCSF postdocs through *social, educational, and political* activities". As of today, this association comprises 1,200 – 1,400 active members that represent approximately 75 nations (UCSF Postdoctoral Affairs Office 2009a). The Executive Council of the UCSF PSA consists of 17 chairs, which are dedicated to different issues, ranging from organizing social hours, outdoor events, lecture series and mentoring meetings to those that deal with outreach, marketing, public relations and sponsorship. The Executive Council also includes representatives who sit at 14 different University committees.

Also, in 2002, the National Postdoctoral Association (NPA) was formed and immediately initiated the development of better standards and policies with respect to postdoctoral appointments. The NIH Pathway to Independence awards for postdoctoral researchers were established through these initiatives, enabling postdocs on temporary visas to apply for

major career-directing NIH award (K99). Administrative structures meant to deal with postdoctoral issues and statuses and serve as liaisons between the postdocs and their advisors, postdoctoral offices (PDOs), were also formed at many universities. Unlike many other UC campuses, UCSF allowed its postdocs to be connected to the Career Center and declared the institutional responsibility for provision of professional development opportunities and complimentary career advice to postdocs (Uskoković 2009a).

The most recent step that the UC postdocs have made in their striving for better rights is their unionization. Among the UC postdoc union members, it is hoped that many of the unfair and non-standardized university practices will be corrected and improved by the actions of the union (PRO/UAW 2010). Hence, similar to the aforementioned founding of PSAs, PDOs and the NPA, the unionization of postdocs can be seen as a natural step on the road towards finding a solution to the issue of postdoc underrepresentation. At the same time, it serves as indirect evidence that the current generation of postdocs considers their conditions of employment as poor; for, historically, underprivileged and frustrated professional groups were primarily those that opted for unionization to improve their status and rights.

The unionization of the UC postdocs has attracted much attention due to the following reasons:

a) *The UC comprises the largest pool of postdocs in the US:* More than 6,000 postdocs are employed by the UC system, which accounts for ~ 10 % of the total number of postdocs in the US.

b) *The UC postdoc community has become the third and the largest postdoc union in the world:* University of Connecticut Health Center in Farmington, CN and University of Alaska are the only two older working unions of postdocs. Formed in 2004, the union of postdocs at the University of Connecticut managed to negotiate raise in the minimum postdoc salary from \$27,000 to \$34,200, and won rights to annual raises, health insurance, paid sick leave and holidays, including a standardized grievance procedure. However, the number of postdocs at each one of these two universities is 150 – 200, which is markedly less than in the UC system. At University of Alaska, also, the postdocs and the professors were collectively unionized, which drastically smoothed up the bargaining process. As of August 2010, unions of postdocs at McMaster University and University of Western Ontario in Canada have been in the process of negotiating their first contracts, setting a wave of interest in unionization among around 6,000 postdocs employed at Canadian Universities (Tamburri 2010).

c) *Postdocs are an unusually socially, culturally and nationally diverse category:* Postdocs are an especially challenging social category to reach to, owing to a large diversity of cultural backgrounds and interests. A survey conducted by the UCSF PSA in 1996 showed that 32 % of postdocs were parents; one conducted at Stanford in 2000 showed that 50 % of postdocs had families; the 2009 survey at UCSF showed that 45 % of postdocs are married or have families. At the national level, the Sigma Xi survey conducted in 2004 showed that 70% of postdocs are married and 35% have children. Also, a survey

carried out by the UCSF PSA in 1996 showed that only 48 % of postdocs were foreign citizens, 60 % of which were, however, permanent residents. Today, at UCSF, it is estimated that 70 % of postdocs are foreigners. Interestingly, as the Sigma Xi survey indicated, temporary-visa holders earn approximately \$2,000 less per year on average than their U.S.-citizen or permanent-resident counterparts. In fact, considering that the expected salaries and living standards of PhDs in most countries other than the US are lower, as well as that postdoc salaries in the US are regulated by the norms of a market-driven society, the low salaries of postdocs can be reasonably associated with the distinct international character of postdoctoral appointments. Hence, internationalization of postdocs as a trend that has followed the increase in their number calls for innovative approaches to mitigate the trend of underpayment of foreign postdocs and prevent further discrimination on the bases of residential and national statuses.

Considering these three points, we can conclude that the unionization of the UC postdocs is unprecedented in many respects. This particular case of unionization is not only an interesting one for postdocs and the American universities, but to the universe of unions *per se*. Unionization of postdocs has also been a particularly sensitive issue because it promoted awareness that the University, their professional home, has been fighting back the calls for improvement of their own working and living conditions. Consequently, personal experience has shown that following the onset of the unionization, discussions addressing its pros and cons, as well as the fairness of stances adopted by both the UC and the union, have been unprecedented in popularity among the postdocs.

### **Unionization of the UC postdocs**

The process of unionization began in 2006; however, it was only in 2008 that the United Auto Workers (UAW), now the official representative of UC postdocs, managed to collect more than 50%+1 of signed membership cards, which gave it the right to begin the bargaining process with the UC over 35 items. The UAW submitted signature cards to the California Public Employment Relations Board (PERB) on June 30, 2008, and the negotiations with the UC team began in November 2008. On July 31, 2010, after 19 months and 62 sessions of negotiations, the UC and the UAW reached an agreement on the first labor contract between the University and its postdoctoral scholars. The 5-year contract (a) obliges the UC to respect the NIH pay scale as a minimum wage for all new postdocs, including annual pay increases in accordance with the NIH guidelines; (b) obliges the UC to provide 3 % up front wage increase effective October 1, 2010 for all postdocs earning less than \$47,000 per year, and 1.5 % increase for those who earn more; (c) obliges the UC to provide 1-year minimum length of appointment; (d) gives no right to strike for the life of agreement; (e) implies no changes to healthcare

for the first 2 years, with a possibility to renegotiate the healthcare costs for 2012. In one-week balloting that concluded August 11, 2010, the UC postdocs approved the contract by an overwhelming vote of 2588 to 121, or 96 % in favor. The negotiations were, however, not proceeding smoothly, and a stalemate was declared in April 2010, following accusations of the UC bargaining team by the UAW over “a broad pattern of bad-faith bargaining that creates obstacles to reaching agreement”. This culminated in the UAW filing charges of unfair labor practices against the UC on June 9, 2010, less than two months before the final agreement on the first contract was reached.

Some of the crucial points discussed over in the bargaining process pertained to the fundamental improvement of conditions of postdoctoral employment:

*a) Standardizing the salary scale and other benefits:* The NIH, for example, recommends but does not oblige PIs to respect the salary scale for postdocs paid through NIH grants, and there were examples of postdocs in the UC system who were underpaid with respect to the NIH salary guidelines. In fact, according to the UAW sources (UC Consolidated Audited Annual Financial Reports 2010), the UC's federal grant revenues, which are used to pay researchers, including postdocs, have increased by 61 % in the period of 1997–2009, while postdoc salaries declined by 2.8 %, when both adjusted for inflation.

*b) Setting the duration of appointment to the maximal 5 years and preventing the UC from laying off postdocs in case of the lack of funding.*

*c) Providing standard childcare and retirement benefits.*

Other issues that have not been discussed by the union in the initial bargaining round, although according to many postdocs they may have presented equally important ones, include the following:

*a) Standardization of salaries with respect to the cost of living:* A housing cost subsidy for UCSF postdocs is one of the examples, and the nearby Gladstone Institute and Stanford University have already implemented the cost of living adjustments.

*b) Allowing full retirement benefits with a matching contribution from the University:* Such is the case with the University of Texas Southwestern where these and other benefits, such as vacation payout, mandatory raises, and longevity pay are allowed (Adhikari 2009), despite the lesser amount of RO1 funding among the PIs compared to the UC.

*c) Obliging the University to provide a permanent position at the same or a different institution for a postdoc at the end of his/her contract.*

The fact that opinions of postdocs regarding the main concerns that are to be addressed at the bargaining table differed from those that were the subjects of the initial round of UC/UAW negotiations is only one of the indicators that the communication between the union and the postdocs has not been perfect. Other signs came from the feeling shared by

many postdocs – negotiations were from their perspective proceeding secretly, “behind closed doors”, with them rarely or never being asked to offer their opinion on the priorities in negotiation. The union has, for example, excluded all the non-members from its mailing lists, whereas updates from the other, University side were equally scarce; a personal impression was that those were most effectively heard at closed meetings. It is no wonder then that many postdocs felt betrayed and taken advantage of by both sides when they realized that they negotiated their working conditions without their direct involvement. Even the most pro-union views of the US history could not ignore examples of corrupt union leaderships that left the unionized labor forces alone and abused instead of fairly represented (Zinn 2003). A fear that the union will simply detach from those whom they are supposed to represent and protect has always been present and the fact that many postdocs already felt left aside during these negotiations can only contribute to even more feelings of insecurity that already pervade their postdoctoral experience. For, there is no doubt that the union can successfully support the postdocs in their strivings to achieve specific political ideals only insofar as there is an active correspondence between the postdocs and the union.

### **The dual role of the PSAs and its loss during the unionization period**

The lack of information flow to and from the postdocs with respect to the sides involved in discussing their unionization (UC, UAW) leads to many questions of interest to postdocs and the PSAs. Prior to being censored, an article about the UCSF PSA written for December 2009 issue of the UC Postdoc Newsletter (Uskoković *et al.* 2009), contained the following: “Whether the ongoing unionization of UC postdocs will interfere with an original idea of our PSA to address the fundamental issues with regard to postdoctoral experience is a big question mark hanging over our heads. Be that as it may, our PSA will try its best not to give up on addressing these greater issues that are of crucial importance for the career path and happiness of postdocs”.

What follows is an elaboration of these two sentences that touch issues that have begun to restructure the concept of the UCSF PSA at the very core. Namely, by shifting the role of asking the essential questions regarding the postdoctoral experience, which is the grassroots ideal from which the UCSF PSA stems, to the union, there are two scenarios I envisage.

The first scenario suggests that the PSA may be on the road to becoming mostly a vehicle for promoting social events for postdocs. It will push aside the issues that fall along the line of the fundamental improvement of the postdoctoral experience, and thus marginalize its role. In fact, it is simply a lack of the awareness of the institutional history and the fact that the change at the UC PSA level has been slow (it may have resembled a frog cooking itself alive in a slowly heated pan) that prevents the current leaderships from realizing the change of the heart that the UC PSAs underwent.

Amanda Stiles, the President of the UCB PSA and the Chair of the University of California Council of Postdoctoral Scholars (UCCPS) during most of the 19-month long bargaining period, flagged up in the midst of it that the UCB PSA was refocusing its aims on the following (Stiles 2009):

- Providing a mechanism for networking and socializing of postdocs (via social hours and other casual events);
- Providing opportunities for career development (via seminars and workshops);
- Providing a way to disseminate information to new and existing postdocs, such as how to get started/settled at Berkeley, how to deal with taxes, recommend dentists, discounts that one gets as a postdoc, etc.

Hence, inquiring about the fundamental issues clearly tends to cede place to being a mere working force and helping hand of the University. In view of this, involvement in the PSA has primarily become a means to craft leadership and organization skills. The immense intellectual potentials of the PSA leadership become squandered on setting up entertaining events; yet, as the low participation of postdocs at these events indicates, such an approach fails in reality. The question I ask is if they fail because it is impossible to reach out to postdocs unless there is a profound content underlying the call for socialization? Sadly, offering free food has many times been shown as the only way to attract postdocs to intellectually stimulating events organized by the PSA (including talks given by Nobel laureates), which is why “bread and circuses” describes the status of the UCSF PSA more than a group of committed individuals who are after following an enlightening set of common ideals.

These two aforementioned purposes of the existence of PSAs can be put side by side:

- Acting as a grassroots movement to improve the working and living conditions of postdocs;
- Providing forum for professional networking and socializing.

Promoting socialization is necessary and has to be an integral part of the PSA mission; however, infusing an intellectual zest to it is essential. Filling the voids in human lives does not come through fun and amusement, but through meaningful social and political engagement, through the dedication of one's time and energy to something that has tangible benefits for the people around us.

The original wave of formation of PSAs at American universities was driven by the need to address issues of underrepresentation and unfair labor practices in addition to providing the space for networking and socializing. The example of the UC PSAs shows us that erasing the political role of the PSAs and maintaining only those related to socializing and career development is unfavorable for maintaining the motivational drive among the given PSA members. Although



by reading the December 2009 issue of the UC Newsletter, one might have had an impression that the UC PSAs had never been doing better, the presented picture was far rosier than it was in reality. Despite the numerous praises of the way UCCPS worked, the biannual meetings thereof, which took place regularly from 2001 to 2008, stopped taking place after July 2008, which, in fact, quite neatly coincided with the onset of the UC postdocs' unionization attempts. Or, as proclaimed by the Chair of UCCPS, Amanda Stiles, "People do not see a role for CPS now that we have the union with bargaining power" (Stiles 2010).

The original goal from which the UCSF PSA stems is described in its mission statement: "The PSA is the peer-led venue at UCSF through which postdoctoral issues and concerns are aired and discussed. Functioning as a voice for UCSF postdoctoral scholars, the PSA's goal is to improve the climate of postdoctoral scholars university-wide. For these purposes, the PSA hopes to make an important contribution to the development and implementation of new policy when appropriate. Additionally, the PSA seeks to improve the quality of training for postdoctoral scholars". The questions I will now address are the following. Does the UCSF PSA really present a venue at which postdoctoral issues and concerns are aired and discussed? What do the PSA members do to fundamentally improve the climate of postdocs university-wide? What policies and what political activities are the PSA involved in? What is the PSA doing to fundamentally improve the quality of training of postdocs? Finally, are its members really making the PSA a channel for the voice of UCSF postdoctoral scholars?

The UCSF PSA was formed in 1995 as a "grassroots organization seeking improvements in the training and work climate of postdocs"; hence, it was initially a group of people dedicated to providing impetuses for the fundamental improvement of the postdoctoral experience. As pointed out by the former PSA President, Gilberto Sambrano, in his seminal article published in *Science's Next Wave* (Sambrano 2000), "The UCSF PSA was formed in 1995 by a small group of concerned and frustrated - but eager - individuals who sought to bring recognition and improvement of training to postdocs... These founders conducted and published a campus-wide survey on postdoctoral training and acquired funding to create an educational seminar series entitled *Practice of Science*. The *Practice of Science* series was very well received by postdocs and faculty, because it provided a means to address topics, such as ethics in science and career development, that are not typically discussed in a laboratory setting... Most importantly, perhaps, the PSA raised awareness among faculty and administrators that postdocs are a unique group with many unmet needs... Although the PSA achieved many of its goals and impacted the campus in several ways during these first couple of years, many of the critical concerns remained. Salaries were still low, policies were inconsistent, and reports of abusive behavior among advisors continued... As a result, and despite the group's eagerness, the PSA lost momentum and motivation... But in the spring of 1999, the UCSF PSA began its rebirth. Reorganization began with a decision to bring back the *Practice of Science* series that had been on hiatus for 2 years.

A group of 10 ready and willing volunteers met to discuss the format and potential topics. Through this discussion, many of the pressing issues currently faced by postdocs reemerged. It became clear that addressing these issues required much more than what the seminar series alone could offer... Now, in the latter part of the year 2000, the PSA finds itself in good form and with strong hopes for continued progress". What this means is that a platform for addressing these fundamental issues regarding the postdocs' lives is essential to complement the casual networking contexts that the PSAs in general currently provide.

Quite paradoxically, the onset of unionization of postdocs is the period that corresponded to beginning of the process of erasing the political role of the PSA inherent to its original mission. The UC PSAs can be thus said to have strayed away from their original commitment and now play a role submissive to the University, neglecting to provide grounds for the political involvement of postdocs. The lost impetus of the major UC PSAs yields questions of what should be done to bring back their grassroots image of an organization composed of creative individuals who stand at the frontiers of modern science.

Since this is a paradoxical situation in which the UC PSAs find themselves (namely, the union-supported postdocs are expected to gain the political power and not become deprived thereof), it is worth a careful examination, which is what this short discourse aims at. Being more aware of the history and the mission of the PSAs will help the PSAs plot a course correctly and, in fact, use the dispute between the union and the University to regain their lost political power.

### **The UC administration outlook and strategy**

The main question is what place the PSAs should occupy in the debate between the union and the University. What is the future of the PSAs? Will they sustain or will they be marginalized even more than now? Do the UC PSAs and the UC postdocs appear as if flying across a no man's land, belonging everywhere and nowhere at the same time, resembling a child in the middle of a chalk circle, with arms stretched to opposite sides, but the real mother nowhere in sight? The impression shared by many postdocs is that the University has been using the unionization to reduce the power and the willingness of postdocs to address essential issues that underlie the quality of the postdoctoral experience. On the other hand, the union, helplessly seeing the PSAs as wings of the University, has been suspected of acting so as to subtract this freedom from the PSAs as well. It is as if it may be in interest of both sides to disempower the PSAs; yet, both claim that they act in the best interest of postdocs. Hence, what seems to have been taking place is a political game in which a battle for political power between the two sides has led to crushing of the UC PSAs.

The UC and the UC PDOs have, for example, continuously stated that PSAs are a part of the University since the University provides monetary and other support for the PSAs. Namely, as of early 2010, only 5% of funding within the UCSF PSA came from external sponsors, although some events, including the inaugural National Postdoc Appreciation Day held on September 24, 2009, were one-third funded by outside sources, mainly the Bay Area biotech companies. As a result, according to the UC administration, the PSAs are no longer allowed to be involved in any activities related to terms and conditions of employment since it is now the territory of the union, as defined by HEERA §3571(f). To quote a letter signed by the UC Office of the President, "I know this sounds like a 'Catch-22', but if the PSA 'consults with' the union it is usurping the University's exclusive role in collective bargaining, and if it consults with the University it is usurping the Union's exclusive role" (Saxton 2010). Moreover, the letter says the following: "...you inquired whether it would be acceptable if the liaison simply provided a 'report' regarding collective bargaining or union issues. This would be a very slippery slope. It is unlikely that the liaison could provide such a report without generating inquiry and discussion by the remaining postdocs... an activity that is inconsistent with the allowable intent of staff associations". However, since there is an enormous difference between negotiating and merely discussing things that define the quality of the postdoctoral experience, such deprivations of freedom to question things do not only go against the grain of the scientific and creative nature of postdocs, but are also illegitimate according to the union officials, especially since postdocs per se are free to discuss any union-related matters on their volition. After all, the PSA has been classified as the campus advisory body, and depriving it from a chance to have an official stance with respect to issues that are of direct interest to postdocs can be seen as being in opposition with the very purpose of its existence.

Ignorance was, however, not the only weakness of postdocs targeted by the UC in this political battle. Another one of the central weak points of the PSAs is their tendency to lose momentum due to the unstable nature of postdoctoral appointments. According to the UAW officials, one of the strategies that the UC relied on in negotiations over the first contract was delaying the process of reaching common agreements, which was also evidenced in the talks between the UCSF PSA leadership and the UC labor relations officers (UCSF PSA 2009). In fact, the UC PDOs, who typically sent their representatives to the negotiation table, have found themselves in the position that resembles the practitioners of the modern medicine, oftentimes aware that perfectly healing the patients will deprive themselves of their professional role and instead aiming at making the patient dependent on the medicines and treatments provided. However, whatever the representative body for a given social or professional group is, be it the NPA, the PDOs or the union in the case of postdocs, the only perfectly fair way of representation would be to work in the direction of eliminating one's representative and defending function since in an ideal system the threats for the given group and the needs to defend it would be absent. Therefore, there is always a risk that a representative body will tend not to perfectly

fairly deputize the given group so as to secure its own role and stable position. Namely, the PDOs were aware that their university function would be either seriously redefined or completely lost should the official representation of the postdocs become shifted to the hands of the union. Like the PSA itself, they too found themselves on ambiguous grounds, on one hand working to promote better rights for postdocs but at the same time resisting doing that by hindering the propositions set forth by the union at the bargaining table. This lack of resolution and concerns about losing their own function may be one of the reasons why the bargaining process was dragged longer than expected. Also, the PSAs' recognizing this dual and ambiguous role of the PDOs in the course of unionization led to serious friction between the two within the UC system and may turn out to be an inevitable consequence of possibly every other unionization of postdocs. At many other Universities, including Yale (Vella-Angelastro 2010), the PDOs have intentionally suppressed the interest of postdocs to form a PSA because of the fears that they might eventually decide to unionize and thus undermine the role of the given PDOs. In fact, a wave of interest in unionization that the unionization of UC postdocs sparked all over the US resulted in an opinion piece published by *Nature* magazine (Gewin 2010b), which was according to its author conceived and written so as to satisfy "the editors (who) thought it best to highlight all the potential pitfalls of unionization so that any campus considering unionization could best prepare themselves for such an endeavor" (Gewin 2010a).

The congressional public hearing held on April 30, 2010 in Berkeley, CA, revealed the lack of seriousness with which the UC approached the negotiations. Its bargaining team had been unable to provide elementary information associated with types and amounts of funding for postdocs in the UC system, even though the Congress asked for it in May 2009, while referring to the high complexity of this particular case of unionization that prevented them from moving forward. Despite this, in February 2010, around 10,000 of the UC researchers and technicians who are paid from the same sources as the postdocs settled the contract with the Communication Workers of America (CWA) trade union, and the question raised by the congressmen was why a similar model could not have been employed in the UC postdoc case, especially since it was known at the time that there were already 13 system-wide and 12 local unions at the UC. The great national diversity of the postdocs, the versatile types of their funding and fear of miscalculating these sources and thus ending up with unfavorable compensations were quoted by the UC team as the reason for this stalemate, which led to not settling down on any single bargaining item from October 2009 to May 2010. Namely, three postdoc categories currently exist at the UC: (a) postdoc employees who are paid through research contracts and grants and who are eligible for health insurance and account for around 5,000 UC postdocs; (b) postdoc fellows who are paid through stipends from extramural agencies, such as NIH, and account for circa 600 UC postdocs; and (c) postdoc pay-directs who account for circa 300 UC postdocs and bring their own money to do research, either through private agencies or foreign countries. Still, the congressmen observed that the UAW has

worked with more diverse categories of workers than the UC had in this case. Even though it is known that 53 % of the indirect costs of postdoc salaries go into the university funds to pay for the operational and administrative costs, the UC team did not know to confirm where those funds go, even claiming that they fully go back to the lab and the PIs, which was a flawed remark. It was also revealed that even though the UC is the public institution, the State of California general fund money has never been allocated as a subsidy to normalize salaries of postdocs who earn less than what the NIH salary guidelines suggest, as is the case with some postdoc pay-directs. Probably most stunning of all was the disclosure of the fact that the same person who wrote the letter cited in the previous paragraph, “worrying” that the PSA may usurp the role of the union (despite the fact that the union gave the “green light” to the PSA to appoint the labor union affairs officer), deliberately shared the list of UC postdocs with the group of UCSD postdoc activists who wanted to contact them all with the proposition to decertify the UAW. Namely, in case an agreement between an employer and a union that represents the rights of a given employee group is not reached within a year, any other group has the right to step up and decertify the union, provided a large enough number of signatures in their support become collected. The UC administrators were claimed to have been sending web sites where calls for the decertification were announced to postdocs at UCSF, UC Davis and UC Riverside. Hence, there are reasons to suspect that the strategy of delaying the UC/UAW negotiations might have been coupled with “guerilla” efforts to decertify the union, which both could be signs of bad faith on the UC side in these negotiations. In conclusion of their report, the UC bargaining team said that the unionization of postdocs posed inevitable threats to the stability of the UC system, although after the thorough questioning by the congressmen, it was found out that the lack of information from which the UC team derived this conclusion made it more of a guess and a declaration of a possibility rather than a statement well grounded in facts and figures. It was a general impression that little informed and not seriously dedicated the UC team appeared on this hearing, presenting its political and administrative side in light of a sheer self-interest-driven entrepreneurial mentality. The question implicitly raised by the congressmen was whether such a corporate mindset fits well the one that is to guide a leading educational institution in the country. A personal impression was that the UC leaders resembled self-concerned capitalists more than inspiring scientists and teachers, repeatedly neglecting to provide the mechanisms to prevent PIs and faculty in general from abusing their postdoctoral and other coworkers, and spontaneously institutionalizing the spirit of self-centeredness that may be said to eclipse the one of communion at UCSF and at American universities in general.

On the one hand, the UC system is a very massive and logistically rigid system, which naturally tends to resist attempts to introduce a change. The smaller and more compact Stanford University has been open to accept proposals for improved working conditions for postdocs,

including increased salary, improved childcare, enabling pre-tax spending plans and disability/life insurance plans, standardizing maternity/vacation/sick leave policies, and offering housing subsidies and cost of living compensations (University of California Council of Postdoctoral Scholar's Meeting Minutes 2002). Unionization of their postdocs, although considered during 2001, that is, prior to reaching agreement with their PSA, in spite of the PSA's awareness that it might take several years to finalize it and that it would inevitably antagonize the University, has thus been avoided (University of California Council of Postdoctoral Scholar's Meeting Minutes 2001). Note also that unionization of UC postdocs can be seen from this perspective as the consequence of the ineffective relations between the UC PSAs and the University, which could have either a politically sterile role of the PSAs or the symptomatic disempowerment thereof by the University as the underlying cause. Hence, unionization of postdocs could be seen as a good reason for revisiting the political effectiveness of the PSAs, which, by the way, presents the core idea of this paper too.

On the other hand, the strategy of delaying the process of reaching common agreements can be seen as a logical way of the UC negotiators to attack the aforementioned weak point of the PSAs, that is, their lack of institutional and motivational continuity. Namely, as postdocs can “find a job” at any time and thus become ineligible to be PSA members, the PSA leaderships often change and “reinventions of the wheel” take place more often than within other organizations. In fact, the latter has been the No. 1 problem outlined at the annual meetings of the National Postdoctoral Association. Maintaining the institutional history with the assistance of the PDOs is often suggested as the solution; however, the motivational consistency and drive is not something that can be conveyed through a set of written records and principles since it greatly relies on the emotional investment and common ideals shared by a group of people. Because it takes time until one understands where the PSA boat is to be steered, the PSA officers' duties are oftentimes turned into mere following of the tradition. In this case, these are concepts and duties that were set forth by previous leaderships.

The lack of interest has been another one of the inherent weaknesses of the PSAs targeted by the UC in an attempt to manipulate with the PSA's incentives and ideals. One of the reasons for this lack of interest springs from the fact that 70 % of the UC postdocs are foreign citizens. Being less interested in changing certain aspects of a foreign social setting explains why the postdocs seem to have little eagerness to join the PSA and use it as a platform for activities that bring about a positive change. This also requires time to form a clear picture of how the UC and the US political and scientific systems work, which is a vital precondition for their questioning these aspects of postdoctoral appointments. Foreigners also often have a hard time communicating their ideas and feelings, which is why they often feel as if living in a socially isolated bubble.



In addition, postdocs, native and foreign alike, were hired because they are successful in research and science (and not in thinking *about* their science), which frequently leaves gaps in many other fields of interest and general knowledge. Overly specializing ourselves thus clearly arises as one of the fundamental problems since a rare number of postdocs and researchers in general are successful in their own respective fields and yet retain a broad and interdisciplinary curiosity. The problem with being a foreigner and not having a secure place in this society is connected with the tendency (and perhaps the tendency of most people) to make up for the lack of the latter by acting in conformist ways. Hence, many of those who volunteer within the PSAs may be individuals who see this engagement as a spur to their career, either because the positions they hold will look good on their resumes or because they may use the PSA as a networking platform for advancing their careers. However, unless the PSA officers stand forth as the voice of postdocs and not of their own, and make the issues of the community that they represent carry more priority than those of their own, they will hardly ever succeed in bringing benefits to it

### **The ideas for reviving the significance of the PSAs**

What we came up with at the UCSF PSA in late 2009 to implement the idea of the PSA acting as a bridge between the union and the University was a Labor Union Affairs Officer, which was meant to be a newly appointed position within the PSA Executive Council. The role of this Chair was to increase the communication between the postdocs and the union. The appointee would have been responsible for maintaining contact with both the postdoc representatives at the UAW and the UC bargaining team before a contract between the two sides became finalized. This officer would have also communicated concerns and ideas that the PSA Executive Council would come up with to both sides as well as report to the PSA about the news in the UAW-UC relations. Once a contract is accepted by the postdocs, the officer's role was meant to be continuation of the communication between the PSA Executive Council and the UAW for the purpose of organizing various co-sponsored events around UCSF campuses. This would increase the visibility and reputation of both the PSA and the union and increase the awareness of the union about issues that would be worth focusing on in their attempts to improve the overall postdoctoral experience. To implement these ideas, a personally proposed funding plan that would be officially sent out to the union once the first contract is in place has been in the process of conceiving and crafting at the UCCPS level (University of California Council of Postdoctoral Scholars' Meeting Minutes, 2010). According to this plan, the funding for the UC PSAs would be divided between three sources: the UC, the union, and external sponsors. As the latter would mostly be local companies, attracting their sponsorship would be welcomed by both the postdocs who would see that as an informal hiring opportunity (and which fits the general rise in the interest of postdocs to permanently settle in industrial waters) and the companies who would see that as a chance for advertising their products, services, equipment, and the mission. All in all, such a diversification of funding sources would establish a greater independence for the PSAs and bring in freedoms of thought that tend to be suffocated for as long as the unilateral control of funding sources is present.

As already mentioned, the UCSF PSA is currently funded by donations from the University, and only a minor extent of its funds comes from external sponsors. Since the union takes over the responsibilities for postdocs in exchange for the monthly dues (1.15% of the monthly income-equivalent to two hours pay for the UAW members, and 0.95 % for the non-card-holders) that the postdocs began to pay after the first contract was ratified, the plan of the UCSF PSA was to propose co-funding of its activities through the union. Even if the PSA could not be funded directly through the union, the PSA Executive Council should through officers designated to maintain an active correspondence with the union work on co-sponsoring events at which questions for the promotion of the rights of postdocs would be discussed. In such a way, the union would increase awareness of the flaws of the postdoctoral statuses and of the possible measures to correct them, whereas awareness of the political and other contexts in which science is done and in which postdocs are immersed would be increased among the postdocs. If the PSAs succeed in convincing the union that it is worth co-organizing events at which issues regarding the fundamental improvement of the postdoctoral experience would be discussed, the role of the PSAs would be raised. Hence, the only way to save the reputation of the PSAs and prevent their further depreciation is to establish the PSAs as bridges between the union and the University.

In order to regain independence, the PSA has to become a bridge between these two. By becoming too close to either of the side, the PSAs would become subservient thereto. By standing in-between and giving both sides (the UC and the union) an impression that they are being carefully monitored by an independent assembly of postdocs, the subjects of their negotiations, the PSAs will show that they can be a friend to both, but also an independent voice of reason should the decisions of either side start to become unreasonable. By demonstrating that the PSAs can be both the harshest "enemies" and the greatest "friends", they would rebuild the power that has been lost some time ago. This brings us to the second of the two aforementioned scenarios that I envisage and the one that, I believe, the PSAs should strive to attain.

With the first contract in place, discussions over the pro or con consequences of unionization that dominated the PSA forums during negotiations that preceded it, when decertification of the union was still possible and pending, can be replaced by brainstorming the options for the PSAs' obtaining the best outcomes out of this "bridging" position. The UC PSAs should become the grounds where the powers of the union will be transformed into a movement which will have a positive effect on the quality of working and living conditions of the UC postdocs and the scientific productivity of the UC. Acting so is, in fact, the only way for the PSA to maintain neutrality in the whole confrontation between the union and the University. The PSA would increase its relevance and the intellectual role; the union would find an easier way to get the feedback from the postdoctoral community regarding the steps it can make to improve the work satisfaction among the postdocs; in addition, improving postdoc living conditions and quality of the workplace can only enhance the scientific performance of the UC. Since the unionization process



was conceived as such that a union head would sit on each UC campus with a single steward dedicated to each department, involving the PSAs in communication with the local union representatives would be undoubtedly beneficial. Getting feedback from the postdoctoral community has been difficult for the union organizers, and the old-fashioned knocking on people's offices and asking them one-on-one to fill out surveys turned out to be the most efficient. With the PSA appointing a Labor Union Affairs chair, responsible for maintaining active communication with the union, the visibility of both the union agenda and the postdoc ideals would be enabled, which would bring the communication between the union and the postdocs to a higher level. In such a way, the PSA and the postdocs with them would step forth, clearly indicating that they do not want to be puppets on the strings of the UC administration or the union, but an independent channel that transmits the voice of the postdocs *per se*.

Of course, by shifting away from the UC structures and towards the union, another danger lurks: the PSA may become a passive voice of the union. During the bargaining process that led to the first contract, the union was in contact only with those who had signed the union membership cards, which was only a bit more than 50% of postdocs at UCSF. On the other hand, the UCSF PSA has had all UCSF postdocs automatically affiliated as its active members, that is, 100% of UCSF postdocs. Also, unlike the UC and the UAW, it does not have any financial interest and exists on the pure voluntary basis. As such, it presents a superb platform for addressing the fundamental issues that touch the quality of the postdoctoral experience. The PSA meetings have also had a significantly higher attendance than those organized by the union. Needless to say, providing a forum where pro and con voices could be confronted in an open dialogue presents a more fruitful approach compared to discussions in which only those who think the same participate. The UCSF PSA is also a much older postdoctoral representative assembly than the union and discarding its relevance would be an ill-considered approach. In view of that, the PSA has all the potentials to be an excellent bridge between the union, which has the political clout for improving the status of postdocs, and the University which is their professional home. In such a way, the PSA would benefit from both the efforts surrounding unionization and those that the University implements to improve the postdoctoral experience. Furthermore, the PSA could present a convenient ground for mitigating the potential disagreements between the two. Since these disagreements have been many, the PSA could play a vital role in coordinating the communication between the two.

### **Broader issues for the union to address**

If the main tasks of addressing elementary working conditions are tackled by the union, then the PSA could be free to concentrate on analyzing other issues that fall more in the domain of scientific creativity rather than in the domain of financial statuses and legislation, including the terms and

conditions of employment. Many doors for exhibiting creativity would thus become open, and yet a security and a sense of protection would be built. This, however, does not mean that the union should not establish more effective communication with postdocs and be pushed to bring other issues into the discussion with the University. As a matter of fact, these other questions can be even seen as more vital for the prosperity of postdocs than those that pertain to wages and elementary benefits solely. If the union settles on negotiating wages and grievances, which are not that common among the postdocs, especially in view of a significant promotion of the postdoctoral statuses at least at the major Universities in the past decade, there will always be a tendency for postdocs to accuse the union of merely seeking a fertile ground to obtain dues while offering minimal efforts to fight for postdocs' interests in return. About \$1-3 million will annually flow into UAW coffers from the UC postdocs, and these revenues may be large enough for the union not only to negotiate salaries and basic benefits, but to engage in discussions aimed at improving the postdoctoral experience at more versatile levels, including the standardization of educational opportunities and other aspects in which the reputation and quality of postdoctoral appointments could be increased. That a certain amount of funds created by the dues paid by the postdocs could be available for this is supported by the expectation that most grievance procedures will be resolved in the first, informal stage; only a small number of those are expected to proceed to the second stage which involves a 3<sup>rd</sup> party arbitrator (O'Connor 2010). This is explained by the unwillingness of the UC to risk its reputation by pushing the disputes to the second stage, and by the fact that the PIs will be more careful at the first place by knowing that the union will protect the postdocs should they become abused or laid off with no particular reason.

Some of these additional questions that extend beyond those of wages and elementary benefits may be related to the following:

- *Will the union engage in discussions over improving the educational standards for postdocs?* Education is a crucial parameter and the core of satisfying postdocs' expectations from their appointments. The 2004 Sigma Xi survey pointed out that nearly half of all the postdocs in the US believe that their postdoctoral appointments do not provide adequate professional training. Furthermore, every fourth postdoc believes that his/her adviser cannot be considered as a mentor, according to the same survey. Instead of providing educational bases for the research work of their postdoctoral appointees, many are PIs who look after merely using the service of this rather cheap and highly productive scientific workforce. PIs oftentimes expect their postdoctoral mentees to be "tied to the bench" despite the fact that the postdoctoral appointment is, first and foremost, about being trained as an independent researcher. The 2010 NSF Science & Engineering Indicators defined postdocs as "a temporary position awarded in academia, industry, government, or a nonprofit organization, primarily for gaining additional education and training in research after completion of a doctorate" (National Science Foundation 2010). Concordantly, in early 2010, the NPA came up with the Core

Competencies Toolkit (National Postdoctoral Association 2010), which is meant to be widely distributed among postdocs and their advisors and which establishes six core competencies that postdocs should develop during their training: (1) Discipline-specific conceptual knowledge; (2) Research skill development; (3) Communication skills; (4) Professionalism; (5) Leadership and management skills; and (6) Responsible conduct of research. There are hopes that a systematic implementation of a mentoring toolkit based on these core competencies will lead to postdoctoral appointments that promote high-quality postdoctoral experience, which is preparing postdocs for an independent career in science and not merely using them as a cheap labor force. Albeit that, it is estimated that the average postdoc spends only about an hour per week on additional training. As pointed out by another former President of the UCSF PSA, Nancy McNamara, "There are some awful principal investigators out there", citing examples of abuse of postdocs at UCSF, including instances of foreign doctors working as postdoc volunteers for no pay (Wickware 2000).

Also, as the cutting-edge research in science becomes increasingly multidisciplinary, we are expected to see more instances of postdocs hired not to be trained in the first place, but to bring a missing expertise to the lab. Among such postdocs subjected to what I call an inverse postdoc experience, whereby the PI is primarily being trained and equipped with expertise rather than the postdoc, I could gladly number myself too. Of course, many foreign postdocs, especially from poorer countries, willingly accept such a state of affairs as an exchange for an opportunity to work and live in a developed society. For example, if there is a PI who does not have a solution to a research problem in his lab, he may tend to hire a postdoc with the right expertise for that purpose. Postdocs are, however, not meant to necessarily bring their expertise to the lab of their PIs, but quite contrary: they are primarily supposed to be trained on scientific aspects which they are lacking and which would increase their chances for a successful scientific career. If, in addition, the mentoring is of negligible quality, there are certainly reasons for the dissatisfaction of postdocs. According to the UAW delegates who have been representing the UC postdocs, the cases where postdocs are hired instead of research specialists, which are, by the way, on average paid more than the postdocs, are many in the UC system. On top of this, the PIs have used the argument according to which "postdocs, being 100 % paid from the NIH/federal research grants, should strictly limit their work time to the research defined by the aims of the given grants". Or, as put into words by a UC Controller's Office employee, "It is my responsibility to make sure that only allowable costs are charged to federally sponsored research. So if there were postdocs being charged 100% to federal grants, but who were not spending 100% of their time actually working on the grants, that would be a problem. Obviously that could be solved by funding part of the salary from a nonfederal source. It could also be solved by ceasing the nonfederal activity" (Hamilton 2010). However, the fact that a postdoc is being paid 100 % from an NIH research grant does not imply that his/her activities at work

should be completely confined to execution of the aims of the given grant. The NIH administration is perfectly aware of the fact that postdoctoral appointments are encouraged within the scopes of their grants because they promote professional development of the talented individuals who have become hired as postdocs; hence, the aforementioned list of 6 Core Competencies compiled by the NPA, which has worked in close correspondence with the NIH policies. Likewise, at the recent annual NPA meeting in Philadelphia (March 2010), the director of the NIH, Francis Collins, was asked about the academic value of the PIs who tend to force their postdocs to be solely devoted to the aims of the research grants, and his response was the following: "PIs who do not see their postdocs anywhere other than by the bench do not live up to their responsibilities" (Collins 2010). He also added that the NPA's Core Competency Program, which diversifies the elements of the postdoctoral training, should be more widely implemented by the PIs.

Yet, many PIs at the UC or elsewhere are not aware of this. Some of them have, for example, intensively discouraged postdocs from participating in the PSA activities. In spite of that, participation within the PSA can be seen as building many of the Core Competencies, particularly #3-5, in the postdocs. Informal exchange of research achievements, methods used and other insights related to scientific performance are also more of a rule rather than an exception at the PSA gatherings (Uskoković 2010b). The PSA has served as an excellent venue for exchange of scientific ideas and sharing of reagents and equipment in the past. In that sense, even the first two aims of the Core Competencies Program can be said to be fostered through involvement with the PSA. Essential professional hints and career advices could be heard at seminars and panels organized by the PSA. Programs fostered by the PSA also offer a great chance for networking, which over and over again proves as being of vital importance for the career development of postdocs. The UCSF PSA has, for example, organized tours of biotech companies in the San Francisco Bay Area, for which the selected postdoc applicants would bring their resumes, showing that the PSA can build links that facilitate finding permanent employment positions for the postdocs too. These and numerous other events organized by the PSA similarly build the competence of postdocs along the lines that complement their research skills.

Yet, many are PIs that are blind to the fact that stepping into broad contexts of a given research prevents one from falling into blind spots that an overly narrowed scientific vision carries, revitalizing scientific creativity thereby. Since it may be in their short-term interest to focus on the research aims of their grants and thereby neglect high-quality mentoring of their postdocs (Uskoković 2010a), they often assume that postdocs are simply a little bit cheaper research specialists. That such instances should be intensively discouraged by the UC policies is, needless to add, clear. However, although these policies look nicely on paper (UCSF Office of Postdoctoral Affairs 2009b) and some UC administrators will proudly point

at them, the main problem is that PIs who do not carefully stick to them are rarely held accountable for their violations. Needless to add, PIs earn mentoring credit on every postdocs that passes through their lab, which would not have been the case with research specialists. The NIH, on the other hand, does not prevent the PIs from dedicating their working hours to mentoring of postdocs, which, as we all know, never falls solely in the scope of the research grant that supports the both, but pertains to issues that do not contribute to accomplishment of the grant aims directly, including career advices, grant writing, employment opportunities, general scientific guidelines, etc.

Thereupon, one of the essential roles that the union may be playing in improving the quality of the postdoc experience is to work on ensuring that postdocs receive good mentoring treatments during their appointments. If successful, the workings of the union may contribute to changing the stereotypical perspective of PIs who tend to see merely a cheap working force in their postdocs. Mentoring postdocs holds great weight in the academic realm and the PIs should question themselves whether they are able to dedicate enough time and effort to provide this precious guidance prior to appointing new postdocs. After all, many written guidelines and policies are out there; what is needed is the legislative power to enforce them in reality, and the union could present an excellent means to achieve this aim. For example, as stated in the most popular and approved handbook for postdocs so far (National Research Council 2000): "In return for working on the adviser's project and with low monetary compensation, the postdoc has the right to expect good mentoring: oversight, feedback, sympathetic consultation, and periodic evaluations. There should be opportunities to present posters and papers". It is known that the labor unions traditionally insure their members against unemployment, ill health, etc., but the provision of professional training, legal advice and representation for members is also an important benefit of union membership, which was, however, not explicitly announced to postdocs during the unionization campaign. Once safe employment is secured for the postdocs, as defined by the duration of their contracts, favorable grounds for endorsing mutual postdoc/mentor performance evaluations could be set, and it is in that that the union could play an essential role in excelling the quality of mentorship. Although such evaluations were defined by the Individual Development Plans (IDPs), they are still not mandatory and do not involve external advisors. In 2000, a proposal for the involvement of such neutral referees was crafted by the PSA and sent out to the Academic Senate, which swiftly rejected it (Sidhu 2010). Of course, exclusion of the external mediators turns IDPs into double-edged swords since they can either improve or aggravate any given postdoc-PI relationship. They have rarely been used primarily

due to the fear shared among postdocs that they may merely threaten their present and future employments should they honestly express their dissatisfactions.

- Why should not the union defend the rights of postdocs with respect to *publication and intellectual property*? As already pointed out, the level of postdocs' expertise and creative involvement in research projects assigned to them is higher compared to those of grad students, which raises an important question: how fair is it to treat postdocs as merely scholars, when they are, on the other hand, considered as employees by the University. There are examples of PIs who prevented their postdocs from publishing results not only because they aspired for perfection and failed to understand that that science advances in small steps and that timely feedback from the research community is vital for sustaining the progressiveness of one's ideas and methods, but because their aim was to save those results and use them to justify projects for which the proposals to funding agencies had yet to be written. There is no wonder that such hindrances to postdocs' building of their publication records can be the cause of conflicts between postdocs and their PIs. A case of a postdoc from a private upstate New York university (myself, I am free to say) can be illustrative in this context. Namely, as his contract was approaching the expiration date, he went on to talk with his PI about how publishable the results he obtained during his 1-year postdoctoral appointment were. The PI agreed on submission of one manuscript, but discarded everything else as incomplete and not worth publishing. The postdoc on the other hand believed that despite incomplete, reporting the data honestly, with the best possible interpretation that could be given, can be crucial for advancing the general human knowledge on biomedical control of the pathological processes investigated as part of his postdoctoral work. Since the autocratic stance of the PI was not open to reaching an agreement on this, the postdoc wrapped up these results by himself and compiled them in four separate manuscripts, each one of which tackled a different topic and presented unique data. He used the affiliation of the given university (and the lab) so as to make sure that it would get a well deserved credit for the research done. After all four papers were accepted for publishing, the PI, informed of that, contacted the journal editors asking for withdrawal of the papers from the publication process, and the Dean of the new school in which the postdoc was employed at the moment, asking for his immediate dismissal on the grounds of ethical misconduct. An exhaustive correspondence between the postdoc and the journal editors and university officials followed, in which the postdoc justified his decision to publish the given results under his own name. As the result, not a single one of the journal editors found it necessary to add even an addendum in a



separate issue to acknowledge the PI's allegations of ethical misconduct, let alone to remove the paper from the journal content (Seifert 2008). The postdoc has ever since claimed that this battle had been won not for himself only, but for postdocs all over the world, who could follow his steps and be free to have a crucial say on when, where and what to publish. Soon after this incident, he asked the NPA officials if they would be interested in organizing a workshop on this topic at one of the NPA conferences, using his experience as the background story. Ignored, he was prompted to notice that the priority of some guardians in life is not always to deal with the most pressing and touching issues, but to hide them under the carpet and deal with lighter topics without risking that they will fall into some troubled waters and threaten their reputation as respected protectors thereby. In spite of that, common sense can teach us that reaching solutions to major problems in the world around us is possible only insofar as we are ready to raise questions that are risky for our status and career.

This is all to say that endowing postdocs with the right to have their say in regard to what is publishable and what is not is essential in putting a stop on this sophisticated form of intellectual slavery. That it is natural that postdocs consider themselves slaves of the modern scientific society becomes apparent by realizing that any ideas they come up with during their appointments, related or not to the specific projects they are assigned to work on, remain the property of their PIs. Such a possession of exclusive rights over one's ideas can have devastating effects on one's creativity, and retracting this form of sophisticated slavery through the unionization can result in much higher levels of satisfaction and productivity for both the postdocs and institutions to which they belong. Yet, in February 2010 the UAW bargaining team gave up on negotiating this right, agreeing with the UC team that "publication authorships and final approval remains a 'management' controlled process (i.e. PI)" (Chehab 2009). Still, since there are three main aspects in which a union tends to improve the state of the workers that it represents: (a) wages, (b) benefits, and (c) management rights, and the publication rights clearly fall into the latter category, an opinion shared by many postdocs is that there should be incentives to include these in the future contracts.

Besides, focused only on immediate advantages of higher salaries, many postdocs have lost sight of the real benefits and pitfalls of unionization even with respect to the payroll issues. For example, while most proponents of unionization were claiming low salaries as the main problem that the postdocs are facing as well as their increase as the primary and oftentimes the only aim of unionization, the opponents of unionization were likewise claiming the union dues as the main and sole downside thereof. The latter mainly neglected the increase in salaries that would surpasses the union dues and were thus unjustified in their concerns, although there

were also overpaid and, I am free to say, self-centered postdocs who were concerned that their salary would drop down to a common level and were thus strongly opposing the unionization. As for those who celebrated the first-term contract that settled on secure 1-year appointments instead of the negotiated 5-year ones, and the rather negligible one-time-across-the-board increase in salaries, many of them were not aware of the obvious downsides of these terms of the contract. Firstly, some opponents of unionization have argued that higher salaries and longer and more stable appointments may lead to a lesser overturn of postdocs, thus placing obstacles on the flow of postdoctoral training. Secondly, with stricter appointments the PIs would be more careful whenever they are about to extend someone's contract or offer a new one, especially when their funds are low. A case of a UCSF postdoc (myself again, I am free to say) can be illustrative in this context. Namely, he applied for a prestigious K99 NIH award, the approval of which lies in the range of 3 – 4 %. Upon his first attempt he received excellent to outstanding grades; as the candidate he was rewarded with the maximal score. Yet, he was asked to revise the grant and resubmit it for the next funding cycle. His postdoc contract was, however, expiring and he needed an extension to stay affiliated with the University and remain eligible for filing the revisions. With the minimal contract duration of 1 year, his PI, who could have committed himself to fund only a half-time of the 1-year appointment, could not offer the extension. With the conditions of the contract between the union and the University, neither are half-time contracts optional anymore, which implied that the postdoc, who could have otherwise accepted a half-time position, became temporarily unable to submit the revisions of the grant. Yet, the union did argue during negotiations that the state funds could be used to cover postdoc salaries in cases when PIs run out of funds for their support. Truly, unless the University is prepared to make one such step in its commitment to some of its most excellent scientific performers, there will always be a treat that they would feel exactly the way the majority thereof feels today – heavily underappreciated. Be that as it may, we can conclude that even the more secure funding, which many postdocs thought would result from the conditions of the current contract between the union and the University, are an illusion and only shifting the postdoc priorities to a broader plan can help in seeing true and lasting benefits of unionization. Giving more rights to postdocs to choose the appropriate time for the submission of their work for publishing is certainly one of those burning issues, which has great consequences for their entire careers, something which a minor increase in their salaries most probably won't have. In that sense, one of the important political roles that the PSA can play is to make both the University and the union aware of what else could be done for promotion of their rights rather than passively keeping the current state of affairs at *status quo*. This incessant race for improvements on wider plans will be essential for the entire university community to thrive and continue to work in productive harmony.

As the UCSF PSA is located within one of the best Medical Schools in the country, it makes sense to ask questions related to the *fairness of the biomedical businesses and practices* too

because it is on the grounds of the NIH, which inevitably has political and economic roots, that the majority of UCSF researchers are being funded. It was a group of student activists at Yale that exposed the fact that the University was profiting off of exclusively licensing the publicly funded research that led to the discovery of the D4T drug for AIDS to Bristol-Myers, while the same drug was too expensive to be available to those who suffered from AIDS in Africa and other third-world countries. This ethically dubious decision of Yale University researchers had its roots in the Bayh-Dole Act adopted in 1980, which gave universities intellectual property rights to federally funded research, and like many other similarly dubious political and legislative fields where ethics of a genuine university culture clashes with the narrow-minded and corporate mindsets could be tackled on the PSA forums and other union-sponsored events. By being essential components of the university life, postdocs have an access to the essential information flow, which places them in great position to expose activities of the university that go against its altruistic education and research mission and try their best to pull the profit and corporate motives out of the university's heart, for as long as the activist spirit is cultivated within their associations (Borden 2005). The PSA should be a grassroots organization, and should the union take the role of resolving the issues connected to wages and grievances, the postdocs could switch their attention to more fundamental concerns that relate to their research practice. With the help of the union, forums could be set up for postdocs to discuss the questions that pertain to various R&D policies that condition their employment, thus building awareness about wider contexts to which their science belongs.

With such an approach, the union would be useful in the sense of enabling the PSA to exert opinions of a greater impact. Simply speaking, postdocs are an essential cog in the wheel of science in this country. They are smart, educated, young enough to be flexible and imaginative and old enough to be deliberate and levelheaded. They can diligently work, spending hours in the lab, but can also profoundly think, knowing how to solidly analyze, interpret and present their results, which is why they are such a badly needed workforce. And being such an essential force of scientific creativity in this country, should they band together and speak, people will listen. In view of that, transforming the PSA from a social organization of lateral impact to one that provides a forum for asking serious and influential questions is of crucial importance. What the University wants from the PSA is what it wants from most other individuals: to obey rather than to creatively revolutionize. Yet, postdocs should strive to remain childlike and innocent scholars, but also be clever and brave enough to touch the fundamental issues of the contexts in

which they do science, and contribute to more of the impression that postdocs truly are an intellectual *crème de la crème*, that they truly stand at the frontier of it all, at the seashore of the expanding island of science. We are surrounded by problems that need to be solved, and to rejuvenate the role of the PSAs, there needs to be a refocusing of abilities. The role of the union, as envisaged from this perspective, should not only be to promote better wages and increased benefits, but such that is supportive of the PSA's addressing deep and fundamental questions that relate to the postdocs' scientific lives. The PSAs should not stop providing opportunities for postdocs to socialize in fun and amusing ways, but they should equally strive to make the PSAs channels for tackling broader issues that aim at fundamentally improving the quality of life of postdocs and their understanding of science and creativity. Letting the union address issues such as minimal wages, duration of appointments, sick and maternal leaves would be of great help, but all these issues merely graze the surface. For, by merely increasing salaries, the happiness and satisfaction among the postdocs would not be substantially increased, at least not in deep and profound terms. After all, the aforementioned Sigma Xi survey found out that admirable oversight and high-quality training had more influence on the satisfaction of postdocs than mere salary and that it would take a \$20,000 increase in salary to have the equivalent impact on job satisfaction as merely improving the quality of mentorship (Scudellari 2010). Without the defined obligations for the University to follow a well structured professional development plan and/or find a secure position for the postdoc as his/her contract comes to an end, there will be no end to the feelings of insecurity that seriously interfere with the quality and productiveness of the postdoctoral appointments.

I will finish with the words of the City University of New York sociologist, Stanley Aronowitz, whom I, as the former Practice of Science Chair of the UCSF PSA, invited to hold a lecture for postdocs about political influence in the realm of science. Among many other things, he pointed out that science is essentially political and that scientists need to start understanding the political contexts of their sciences and begin influencing the latter. He mentioned that only after scientists, not politicians, entered the public arena and declared that human factor is involved in global warming, the rhetoric of politicians adopted the scientific language. Thus, he said: "Unless scientists start asking questions, private corporations and governmental incentives won't change because they are all about money and profits". A clear call for constructive and benevolent political activism, which I propose here as the aim for the PSAs, that is. When asked about the prospects of the unionization of postdocs, Stanley lightly touched the essence of the idea that the union is

useful mostly insofar as it addresses problems beyond those of wages and elementary working conditions: "In early 1960s, Committee of Interns and Residents was formed as a union in New York City, now a national organization, with contracts with hospitals in San Francisco and New York City. What they began to understand is that one of the major problems was not only that they worked themselves to death (they brought the contractual work week down to 70 hours; they worked 90 hours before). The second problem is their relationship to the regimes of patient care and to the products of experimental and normal science. And so they began to ask these very qualitative questions about the quality of their own working lives beyond those of wages. And they forgot it! What I hope you will do if you decide to form a union is that at some point you will consider, and you may just reject some of the questions that I have just raised" (Aronowitz 2009).

### Summary

To sum up, what this paper calls for truly is an invitation for a more intensive political engagement aimed at promoting better rights for postdocs, a traditionally underrepresented professional category at the American universities. What we can follow nowadays at the UC is one of the precedential steps in this battle of postdocs for better rights. Since some of the UC PSAs belong to the oldest in the country and have traditionally been at the frontier of redefining the role of the postdoctoral political activism, there is a chance that postdoc unions are the next big thing in the postdoc universe. As there is a prospect that postdocs at many other universities will follow the same path and choose to unionize themselves, learning from this particular process of unionization will be of crucial interest for many other PSAs. One of the consequences of unionization, from its early beginnings until this very day, has been depriving the UC PSAs of their keenness to address issues that touch the basic quality of postdoctoral appointments, including the conditions of their employment. The causes of this apparent paradox were examined in this work and solutions on how to restore the political relevancy of the PSAs in the times of unionization were offered. The main conclusion is that the PSAs should adopt the middle way between the union and the University and pose themselves as channels between the two. Many demerits arising out of incompletely explicated communication between the union and the University may thus become transcended. In such a way, the PSAs may become rejuvenated and regain the role of powerful political platforms for addressing postdoctoral concerns from neutral and independent perspectives. Finally, although many may think that the battle for unionization of the UC postdocs is over with the first contract in place, the arguments presented in this discourse point at the fact that the real battle for the improvement of conditions of employment of postdocs through the union channels will only then begin. The ideal scenario envisaged in this paper thus sees the union and the administrative and activist university

postdoctoral bodies, that is, PDOs and PSAs, respectively, working together in the direction of acknowledging each other's importance for ensuring the proper working satisfaction and productivity of postdocs and forming a synergy where their individual know-how and creative perspectives will complement each other rather than engaging in political battles aimed at depriving each other from the political and administrative power and cutting the communication channels between them. In such a way, the legislative and other support upon which a productive postdoctoral experience stands and from which it will be free to flourish would be enriched with a prospect of benefitting all: the postdocs, the university community, and the excellence of the scientific enterprise of the US and the planet Earth as a whole.

### Acknowledgments and additional notes

As of August 2010, when the first contract between the UAW and the UC was ratified, the author was the President of the Postdoctoral Scholars Association (PSA) of the University of California, San Francisco (UCSF) and the President of the University of California Council of Postdoctoral Scholars (UCCPS). He dedicates this work to all the genuinely caring postdocs and PIs out there and owes special thanks to Victoria Wu for help in editing this work. He would also like to acknowledge the UCSF postdocs who have through valuable discussions contributed to shaping of the ideas presented in this paper, including: Victoria Wu, Sunny Wong, Daniel Almonacid Coronado, Dorothy Jones-Davis, Peter Kolb, Norval Hickman, Evelin Szakal, Aung Chein, Ralf-Peter Herber, Bruce Adams, Anirban Adhikari, Rishi Kant, and Susan Mashiyama. Expressed here are his personal views and not those that represent the UCSF PSA or the UCCPS as wholes.

### References

- Adhikari, Anirban, Department of Biochemistry & Biophysics, University of California, San Francisco. 2009. Personal correspondence.
- Aronowitz, Stanley. 2009. Is Science Political? The Practice of Science Lecture Series, University of California, San Francisco.
- Borden, Jennifer. 2005. University, Inc.: An Interview with Author, Jennifer Washburn. *Corpwatch* (April 11, 2005); available at <http://www.corpwatch.org/article.php?id=12066>.
- Calarco, Patricia, Dean of the Graduate Division, the School of Medicine, University of California, San Francisco. 2010. Report for the UCSF Graduate Council (February 4, 2010).
- Chehab, Farid, Chair of the Coordinating Committee for Graduate Affairs, University of California, San Francisco. 2009. Report on behalf of Michael Beattie and Jerry Hedrick. UCSF Graduate Council Meeting (December 1, 2009).
- Collins, Francis. March 2010. Lecture at the National Postdoctoral Association Meeting, Philadelphia, PA.



- Davis, Geoff. 2005. Doctors without Orders: Highlights of the Sigma Xi Postdoc Survey. *American Scientist* 93 (3, supplement).
- Friesner, Joanna, Mark Belamonte, Heather Watts, Eliza Bliss-Moreau. 2009. Salary Cut Petition. Addressed to Mary Croughan, Chair of the UC Academic Council, and Farid Chehab, Chair of the UC Coordinating Committee for Graduate Affairs.
- Fuhrmann, Cynthia. 2010. Preparing Future Faculty Seminar. University of California, San Francisco.
- Gewin, Virginia, Contributing Writer for Nature. 2010a. Personal correspondence.
- Gewin, Virginia. 2010b. The Spread of Postdoc Unions. *Nature* 467, 739 – 741.
- Hamilton, Cecilia, The UC Controller's Office. May 2010. Personal Correspondence.
- Hindery, Robin. 2009. UCSF Researchers Hope for Hearty Portion of New NIH Funds. University of California, San Francisco News Center; retrieved from <http://www.ucsf.edu/news/2009/02/8275/ucsf-researchers-hope-hearty-portion-new-nih-funds>.
- Kreeger, Karen. 2004. Healthy Limits. *Nature* 427, 178 – 179.
- Mason, Betsy. 2004. US postdocs: Young, Gifted ... and Broke. *Nature* 428, 690-691.
- National Postdoctoral Association. 2010. The NPA Postdoctoral Core Competencies Toolkit. available at <http://www.nationalpostdoc.org/competencies>.
- National Research Council. 2000. Enhancing the Postdoctoral Experience for Scientists and Engineers. National Academy Press: Washington, DC.
- National Science Foundation, Division of Science Resource Statistics. 2010. Science and engineering indicators 2010. National Science Board: Arlington, VA; retrieved from <http://www.nsf.gov/statistics/seind10/pdf/c03.pdf>.
- O'Connor, Matthew. 2010. Interim PRO/UAW Executive Board. Personal Correspondence.
- PRO/UAW. 2010. PRO/UAW Postdocs to UC: Stop Stalling and Reach a Fair Agreement! Pamphlet given out at the UC Regents Meeting, University of California, San Francisco, May 19, 2010.
- Rohn, Jennifer. 2011. Give Postdocs a Career, Not Empty Promises. *Nature* 471, 7.
- Sambrano, Gilberto. 2000. The Ongoing Challenges of the UCSF Postdoc Association. *Science NextWave* (November 17, 2000).
- Saxton, Gayle, The UC Office of the President. 2010. Letter to Chris Des Jarlais and Guy Zuzovsky, RE: The UCSF Postdoctoral Scholars Association, January 19, 2010.
- Schatz, Gottfried. 2004. Postdocs. *FEBS Letters* 568, 1 – 3.
- Scudellari, Megan. 2010. More Money, Fewer Postdocs. *The Scientist* (April 26, 2010); available at <http://www.the-scientist.com/blog/display/57381>.
- Seifert, Robyn, Human Resources Generalist, Clarkson University. 2008. Personal correspondence.
- Semeniuk, Ivan, Meredith Wadman, Eugenie Samuel Reich, Jeff Tollefson. 2011. US Science Faces Big Chill. *Nature* 469, 9 – 10.
- Sidhu, Sukh, Cardiovascular Research Institute, University of California, San Francisco. 2010. Personal correspondence.
- Singer, Maxine. 2004. The Evolution of Postdocs. *Science* 306, 232.
- Stiles, Amanda, Department of Plant and Microbial Biology, University of California, Berkeley. November 2009. Personal correspondence.
- Stiles, Amanda, Department of Plant and Microbial Biology, University of California, Berkeley. February 2010. Personal correspondence.
- Sullivan, Kathleen J. 2010. Number of Postdocs on Campus Sets a Record. Stanford Report (April 7, 2010); available at <http://news.stanford.edu/news/2010/april/post-doc-students-040710.html>.
- Tamburri, Rosanna. 2010. New Postdoc Awards Welcomed in 2010 Federal Budget. *University Affairs* (March 17, 2010); available at <http://www.universityaffairs.ca/new-postdoc-awards.aspx>.
- Taylor, Mark. 2011. Reform the PhD System or Close It Down. *Nature* 472, 261.
- University of California Consolidated Audited Annual Financial Reports. 2010. Available at <http://www.universityofcalifornia.edu/reportingtransparency/>; Academic Salary Scales. 2010. Available at <http://www.ucop.edu/acadadv/acadpers> and the US Bureau of Labor Statistics CPI Inflation Calculator. 2010. Available at [http://www.bls.gov/data/inflation\\_calculator.htm](http://www.bls.gov/data/inflation_calculator.htm).
- University of California Council of Postdoctoral Scholars' Meeting Minutes. September 2001. Available at <http://www.ucpostdoc.org/node/24>.