

**PART III**

**RELEVANT  
SUPERVISORY  
ISSUES**

## 13 RESEARCH MISFEASANCE ISSUES

### 13.1 Overview

In Chapter 9, the issue of conflict resolution was covered in some detail. Specifically, in Section 9.3, the issues surrounding management of conflicts in relation to academic misfeasance were examined. Herein, we look at the issue in the context of academic implications, as well as possible remedies.

At some stage in their careers, academic staff will need to deal with academic misfeasance and its identification, reporting and ultimate resolution. This book focuses upon research supervision, and so much of what is presented here is applicable to research students and colleagues. However, research supervisors may also become aware of misfeasance that takes place at a more senior level, and all need to understand that they share a responsibility for putting an end to it as quickly as possible, wherever it occurs. A failure to expose misfeasance will only lead to more misfeasance, and possibly to an increasing extent – because it is fueled by the emboldening of those who think that they have gotten away with previous episodes.

In Chapter 9 it was also noted that the exposure of misfeasance can represent the most serious and traumatic event that an academic will experience and, at the end of it all, if an institution fails to act in correcting the wrongdoing, then an academic needs to consider the option of resignation – with all the possible career implications/damage that that will entail.

In the final analysis, universities can only fulfill their role in society if they are free from wrongdoing, be it academic, financial, personal or political. Every individual within the institution, from a first-year undergraduate student, through to the most senior university president or governing board member has an onus upon them to ensure that their institution merits the public trust that is placed upon it and its academic work. To this end, colleagues, students, the general public and other institutions will judge *deeds* in preventing and ending misfeasance as more significant than *words*.

In this chapter, we look at a range of academic misfeasance issues that might typically confront a research supervisor in the conduct of his/her duties, specifically:

- Misrepresentation of academic credentials
- Exaggeration/overstatement of academic track record
- Exaggeration/overstatement of research findings
- Falsification/fabrication of results
- Plagiarism and failure to acknowledge work
- Theft of intellectual property (IP)
- Misappropriation/misuse of research funds.

Thankfully, these issues are not commonplace, in the sense of everyday occurrences, but they are sufficiently common that supervisors need to be aware of them.

In addition to academic issues there are also serious, personal misfeasance issues, such as harassment and bullying, which have already been covered in Chapters 3 and 9.

Each university should have its own documented specific procedures and processes for dealing with all these issues, and some of the issues may be deemed to be criminal conduct. In this chapter, therefore, the issues are examined in a generic sense, on the assumption that the details will be covered by university regulations or national/regional legislation.

It should also be apparent that the approach to be taken in managing issues of misfeasance needs to consider the nature of the alleged perpetrator. Specifically, a research supervisor has formal responsibility for the welfare of a research student, so if it is the case that a research student has engaged in misfeasance, then the supervisor needs to act with caution in order to:

- Provide natural justice
- Support the student while any investigation is under way.

The same level of *duty-of-care* may not necessarily apply if the alleged perpetrator is more senior than the supervisor, because the supervisor has no formal responsibility for management of that individual.

In all cases, the research supervisor needs to be aware that any accusations which are made could have serious legal implications in terms of defamation – including libel and slander. It must also be well noted that defamation laws vary greatly from country to country. In some countries, the fact that an allegation is proven to be true can mitigate against defamation. In other countries, even if an allegation is proven to be true, any statements raised may still be deemed defamatory if they do not satisfy an additional benchmark of being in the public interest.

The utmost care therefore needs to be taken to ensure absolute confidentiality with any privileged information which arises during the course of an investigation, and that discussions on such matters are strictly reserved for relevant university office-holders. It is also worthwhile to check on the specific defamation laws which apply in one's own country before pursuing any action on misfeasance.

Table 13.1 presents an approach that might be considered when dealing with misfeasance within the university.

In terms of pursuing any issues of misfeasance in a professional manner, the starting point is always *the assumption that the person involved is innocent, and that the objective is to gather sufficient information to determine why anomalies exist – and to correct them.*

It is particularly important not to use hearsay or the mere appearance of misfeasance as an excuse for a witch-hunt, or to settle scores that have arisen as a result of personal antipathies with research students or other staff members. This sort of behavior will inevitably backfire and may lead to serious charges against those making vexatious claims.

In commencing any investigation into misfeasance, consideration also needs to be given to the long-term relationship between the person allegedly involved and the person making the claims against them. Unfounded accusations can destroy careers, future relationships and, if widespread in a research group, department or faculty, can render the organization dysfunctional.

<i>Stage</i>	<i>Issues</i>	<i>Comments/Considerations</i>
Awareness	<ul style="list-style-type: none"> <li>• Be aware that misfeasance can occur in the university environment.</li> <li>• Be aware that there can be many innocent reasons for perceived misfeasance – including simple administrative errors or oversights.</li> </ul>	<ul style="list-style-type: none"> <li>• Accusations of misfeasance can have extremely serious consequences for both the person reporting the incident and the person allegedly involved.</li> <li>• Never act on mere hearsay, or make accusations unless sufficient objective facts and data exist to warrant investigation.</li> </ul>
Check on university regulations and procedures	<ul style="list-style-type: none"> <li>• Universities have regulations and procedures for dealing with misfeasance, including specific committees (e.g., research ethics) and specifically nominated office-holders.</li> </ul>	<ul style="list-style-type: none"> <li>• Do not attempt to take action in isolation or independently of constituted committees. Any personal involvement in the issue may need to terminate once an appropriate office-holder or committee is formally advised of misfeasance.</li> </ul>
Collection of facts and data	<ul style="list-style-type: none"> <li>• Data, facts, written correspondence, etc. need to be assembled before raising any claim of misfeasance.</li> </ul>	<ul style="list-style-type: none"> <li>• Do not take actions based upon rumors, hearsay or other subjective information. Evidence should be objective and irrefutable.</li> </ul>
Confidential meeting with person involved	<ul style="list-style-type: none"> <li>• If the person involved in the misfeasance is a colleague then consider a confidential meeting to discuss the issue of misfeasance.</li> </ul>	<ul style="list-style-type: none"> <li>• Do not make accusations in the meeting. Carry out discussions on the assumption of innocence and with the intention of resolving irregularities.</li> <li>• If necessary, present facts, data or other information that need to be addressed</li> </ul>
Confidential meeting with university office-holders	<ul style="list-style-type: none"> <li>• If the person involved in misfeasance is not a colleague, or if personal private discussions have failed, organize a meeting with an appropriate university office-holder or committee representative.</li> </ul>	<ul style="list-style-type: none"> <li>• Present only facts, data, written correspondence at the meeting – do not venture opinions on the subject.</li> <li>• Leave the authorized office-holders or committee members to pursue the matter, providing input only if requested.</li> </ul>

*Table 13.1 – Steps for Dealing with Misfeasance*

## 13.2 Misrepresentation of Academic Credentials

Universities are entrusted by the public – and sometimes through formal national/regional legislation – to be the gate-keepers of academic integrity, specifically as it pertains to the issuance, validation and verification of any awards that are granted to students. The misrepresentation of academic credentials is therefore a serious issue that universities need to confront whenever and wherever it is identified – and it is not an exceedingly rare phenomenon.

There are clearly differing practical ramifications associated with the type and manner of misrepresentation. For example, the falsification of a medical, dental, veterinary science, law or engineering degree could have extremely serious and direct ramifications. The falsification of an arts degree in history may have less obvious consequences. Nevertheless, from the perspective of an institution, all such breaches are a serious matter.

For a research supervisor, entrusted with the supervision of a postgraduate student, the most obvious responsibility is to ensure that an impending student has the qualifications that he/she claims to have, in order to undertake the advanced qualification. Good universities will already have procedures in place to screen all applicants for higher degrees by vetting their stated qualifications, and requesting original or certified transcripts from the originating institutions. If the university does not have centralized screening of higher degree candidates then, self-evidently, the responsibility for validating stated qualifications falls to the supervisor.

In any given university, a significant proportion of higher degree candidates come from the same institution, so validation of claimed qualifications is a relatively trivial matter – even more so when the supervisor is already familiar with the individuals as undergraduate students. However, the process is considerably more complex when higher degree applicants come from other institutions, and especially for those who are international students.

The practice of insisting upon original documents as a means of validating qualifications only has limited value in an environment where sophisticated software and printing technologies are widely available at negligible cost, and can produce convincing replica documents. A further consideration is that there is little value in asking for an original document from an international institution when nobody has any experience with what the genuine documents from that institution actually look like – there is no point of reference.

It is common practice in higher degree programs for an institution to

request that research students present original transcripts and testamurs from their own universities in order to be given candidature. In order for a graduate to request original academic transcripts and testamurs from his/her university, it is generally necessary to produce identification – however, this is not the case in all institutions.

The situation is further complicated when graduates have a common name, such as *John Smith*. There is nothing to preclude a person with the name *John Smith* from presenting at a university where another *John Smith* has actually graduated, in order to acquire an original set of academic transcripts that can be used for misfeasance. In practice, therefore, unless photographic identification is matched with student photographic records, it is difficult to unequivocally validate the credentials of students from other institutions.

One systematic and rigorous approach is to ask the applicant to provide a reference from an academic supervisor/lecturer from the preceding institution and then, with the student's permission, contact the referee to ensure that the student is who he/she claims to be.

If one is to be pragmatic about the issue, as long as a research student is able to perform the required research tasks and publish work then, in a practical sense, it may mean little whether they have their stated original qualifications or not. However, in the context of universities acting as gatekeepers, it is important that a postgraduate researcher is a person who has the equivalent skills of someone who has already graduated. After all, the implication of a higher degree, such as a Doctorate, is that the recipient has formally graduated with the learning and knowledge implicit in an undergraduate program, and has then taken on advanced studies. The fact that someone is capable of undertaking advanced studies without having passed the prerequisite undergraduate materials is then neither here nor there.

From the supervisor's perspective, if it becomes apparent that a research student has misrepresented his/her credentials in order to get into the program, then clearly formal action needs to be taken. Most universities will have processes in place to deal with these sorts of issues, and the matter may well be taken out of the hands of the supervisor and passed through to a more centralized procedure. In the first instance, however, the supervisor has a responsibility to ensure that he/she has all the facts before raising the matter elsewhere.

It is also important for the supervisor to raise the issue tactfully with the research student prior to escalating the matter, to determine whether there are any special circumstances related to anomalies in claimed credentials – the presumption of innocence. For example, in the case of international

students in some countries, first and last names are often reversed, and checks may fail to find qualifications where they do in fact exist.

There are other situations where a supervisor may identify misrepresentation of credentials – these may be from a colleague or even a more senior staff member. Regardless of the seniority of the person involved, the issue of misrepresentation of academic credentials needs to be addressed. And, if there is an appearance of misrepresentation because of some anomaly in the person's history (e.g., his/her institution changed names or has become part of another institution – both scenarios being relatively common), then this also needs to be cleared up. In an organization where the core business relates to the issuance and integrity of credentials, it is clearly critical that all staff and students have the credentials they claim to have and that any anomalies are eliminated, so that the public can have confidence in the institution.

Finally, it needs to be reiterated that, in terms of managing anomalies with research students, colleagues or more senior staff, it is *imperative* that strict confidentiality is maintained. If it eventuates that there is an administrative error rather than misfeasance, then any public declarations of impropriety could lead to legal defamation charges of libel or slander. For these reasons, issues relating to misrepresentation should only be discussed with the person involved and with the authorized office-holder of the university, whose task it is to provide oversight of such issues.



### 13.3 Exaggeration/Overstatement of Academic Track Record

Few research students will have any significant research track record when they commence their postgraduate program, and so the issue of exaggeration/overstatement of track record is generally a moot point. Nevertheless, as they progress through their research program there will be increasing occasions and opportunities for them to present their curriculum vitae – not the least of which will be towards the end of the program as they seek to obtain employment.

Research students graduating from a university carry its imprimatur and so there is some onus on the supervisor to ensure that what is presented to future employers – insofar as it pertains to the postgraduate research program – is an accurate reflection of the achievements and activities that took place. Of course, supervisors do not necessarily have the right to view what graduating students are presenting to future employers – unless the supervisors are intending to act as referees for the candidate. However, in those instances where supervisors are privy to claims made by the research student, it is important that the claims are accurate.

The practical reality is that the modern curriculum vitae serves two purposes – one is in the depiction of a career and the other is as an advertorial tool to promote the individual. Some latitude needs to be given to claims in consideration of the latter function, but there is a need to ensure that a misleading picture of the research student's capabilities is not created as a consequence – and seemingly endorsed by a supervisor who may act as a referee.

It is also entirely likely that, during the course of a career, an academic will come across various instances of exaggeration, overstatement and embellishment of claims by other academics. As gatekeepers of knowledge, universities and their staff all have an innate responsibility to ensure that what is presented by the university is accurate and independently verifiable. To the extent that academics are made aware of misleading claims, arising from overstatement, there is some onus to correct the record.

Some universities have implemented online databases in which academic staff enter specific achievements (publications, citations, patents) as they arise, and other material related to staff – such as research grant data – is automatically populated by centrally maintained data records. In addition to this are included qualifications which have been independently validated by the university. Collectively, these automatically generate a *pro forma* curriculum vitae for each staff member, and which has a reasonable level of accuracy. The *pro forma* structure leaves little room for embellishment and

provides a useful mechanism by which outsiders can check claims made by academics. However, without such systems being in universal usage, personally prepared documents are still commonplace, and so there is a need for academics to be alert in regard to misleading overstatement.

Typical areas of overstatement in academic résumés include overstatements in relation to:

- Publications or contributions to publications
- Citations
- Research grant funding
- Patents or involvement in development of technologies for patents
- Start-up companies and involvement in start-ups
- Participation on government, research or business/industry boards and committees.

These are all in addition to another potential source of overstatement – that which pertains to the outcomes/ramifications of research itself. This will be dealt with in Section 13.4.

The question, however, is what can be done in order to identify, prevent or minimize overstatements? This is a complex issue because – by definition – overstatements of achievements contain some elements of fact/truth, which have been stretched. For example, an academic claiming participation in a start-up company, or the development in technologies which have been patented, may well have had some involvement in these activities – however, a fair-minded, independent observer might dispute that those contributions warrant any real claim of participation.

To some extent, challenging these anomalies is a thankless task, and one which will clearly cause animosity with the person making the overstatements. There is also the possibility of litigation arising from making allegations of wrongdoing against an individual, which are difficult to substantiate with hard facts/data.

The only real tool that academics have to reduce this type of misfeasance is to ensure that, where practical and not defamatory, hard data is made available to decision-makers who might be adversely affected by the overstatement of others. Opinions and other subjective information relating to overstatement achieve little more than to inflame the situation because they are, in effect, being used to challenge other opinions and subjective information.

In the absence of verifiable numerical data, official documents, sworn statements, etc., the task of challenging overstatement is difficult in a

practical sense. Overstatement is certainly not the clear-cut breach of faith that exemplified in falsified formal credentials. So, while there is an onus on all to protect the integrity of knowledge, in many cases one has to be pragmatic enough to recognize that the tools to achieve this protection may not always be available.

Calling out staff or students in relation to overstatement is fraught with risks (including defamatory slander and libel charges) because any public declarations about overstatement are difficult to defend if overtly challenged by the offended party.

### 13.4 Exaggeration/Overstatement of Research Findings

In many fields of endeavor, the results arising from research are clear, objective and unequivocal. Notably, these tend to be hard sciences (physics, mathematics), engineering and chemistry. In other areas of study, including business, economics, humanities, social sciences, biosciences, etc., there are elements of subjectivity, as well as the confounding problem of determining/interpreting the significance of statistical outcomes – beyond the strict statistical definitions. Over and above these basic issues, there is also the challenge of interpreting the importance of a piece of research within a historical or field context. This, combined with the tendency of universities to provide career advancement, based upon perceptions of the importance of an individual's research, leads to the problem of overstatement.

Exaggeration and overstatement can take on various forms – and some of these go beyond an interpretation of the significance of the research results themselves. Sometimes, the overstatement can spill out into the public domain through exaggerated claims of the implications of particular research outcomes.

A good example of overstatement would be one where the news media reports – based on an academic's assertion – that some public-good outcome will be achieved *within five years* – when it is already known that the actual, current state of affairs is only a piece of basic research with some positive outcomes.

In the overall scheme of research and development, basic research generally needs to be translated into applied research, where the basic research is aligned with a practical application. Subsequently, there may need to be pre-competitive research, development, certification or approval, design for manufacture, manufacture, marketing, logistics, distribution and sales. All of these could take a decade or more to complete, so there may be no chance of a practical transition from basic research to end product, *within five years*. In other words, what has emerged in the news media as a result of information provided by a university is an *inaccurate overstatement* of the reality of a situation.

This sort of overstatement can come about as a result of an enthusiastic university marketing department overstating already overstated academic claims, to convert them into media releases, and the news media again overstating these in order to give a story greater impact. The end result is that the reality and the public perception of what has occurred in the university research are completely incongruous.

Some may view this example of overstatement as relatively harmless, in the sense that it may spur greater participation in university research or greater benefaction, but the reality is that it is prevarication – a falsehood which is allowed to emanate from a university through what may initially be perceived as a small, white lie.

Stakeholders in the university system – and that includes students, staff and the public – need to have confidence in that system. If a university claims that, for example, a pharmaceutical product to cure a particular ailment will be available *within five years*, then the university and the staff member need to be held to account for that claim. While one white lie may slip through unnoticed, ultimately, if academics and universities continually overstate the significance of their research, then the institutional goodwill, which has often been built up over centuries, will be damaged – and so too will be the goodwill of other institutions who may have had no involvement in the overstatement.

All academics have a role to play in ensuring that information which emerges from a university is, to the best available knowledge, entirely accurate – or, at the very least, a genuinely held subjective opinion which may be independently upheld or supported by a body of other learned scholars.

University research is generally at the cutting edge of knowledge, so there are always opportunities for outcomes to be contested as other information emerges, but there must be underlying integrity to the process – otherwise all institutions become discredited – and, once credibility is lost, then it is almost impossible to regain.

The difficulty with challenging overstatement in research findings is the same as the difficulty in challenging overstatement of personal academic achievements. That is, the exaggerations often run so close to the facts that they are rarely complete fabrications. For example, it may be possible that a current piece of basic research will lead to a pharmaceutical cure for an ailment, *within five years* – however, this may also be a highly improbable scenario. How does one challenge such exaggerated claims when there is a kernel of truth buried in them?

One possible approach is provided by tools, such as PubPeer.com (*Pubpeer.com, 2016*), which allow other researchers a convenient mechanism to provide rapid feedback on an article they may decide lacks credibility. So, in many ways, exaggerated claims, especially in mainstream media outlets, should be expected to provoke negative consequences for the researcher/student. It also needs to be noted that tools such as PubPeer cross reference with large, professional databases such as the National Institutes of Health (NIH) PubMed system. Thus, in exchange for a minor

flourish in the mind of the general public, an unethical academic may find a major professional backlash.

Another approach to minimizing the levels of research overstatement that leave the university confines is to ensure that work always receives local peer review – within the research group, center, department, institute or faculty. Peers need to ask questions and get answers before research moves into an arena where it is not reasonable to expect practitioners to have the skill to challenge anomalies (e.g., the news media).

For example, in the case of an academic claiming to have generated a piece of research for which a commercial product will emerge, *within five years*, some reasonable peer questions could include:

- If you read a similar claim by one of your close competitors, what would you think of it? If the opinion of those in your field would be negative, what consequences might result?
- Have you ever worked previously in this area of business in a professional capacity?
- Do you have commercial partners signed up?
- Do you have seed funding or venture capital?
- How long will the development phase take?
- How long will it take for certification/approval?
- Who will fund the certification/approval process and how much will it cost?

This basic questioning should be applied as a normal matter of principle within research groupings, as part of a Socratic approach, which should be an integral part of university learning. Colleagues always need to ask questions in order to encourage the proponent of an idea or claim to engage in a deeper level thought process about his/her assertions.

The Socratic Method is particularly important in the case of research students who make claims about their research – especially overstated ones. The objective is not to embarrass, accuse or humiliate the research student but merely to get the student to consider the broader implications and possible flaws in his/her thought process.

At the end of the process, insofar as it pertains to research students, research supervisors have a direct responsibility to ensure that any claims made by the student – through the auspices of the university – do not extend into the realm of overstatement or exaggeration.

### 13.5 Falsification/Fabrication of Results

There are many shades of gray in research, and there are always people who can take advantage of these, as is apparent in various forms of overstatement. However, there are no shades of gray when it comes to the falsification or fabrication of results. This is a clear-cut case of academic fraud, and all academics have a responsibility to ensure that the practice is called out for what it is, as soon as it is identified.

The practical problem is that falsification or fabrication of results is often difficult or, at the very least, extremely time-consuming to identify. Unless one is watching over the shoulder of another researcher when experiments or surveys are conducted – or results entered into a spreadsheet – then how can one possibly tell if results have been falsified? The answer is that one generally cannot identify falsification or fabrication unless:

- An individual who was present during a research procedure has first-hand knowledge of the incident
- An individual has been asked by his/her supervisor/manager to actually fabricate or falsify results
- The fabricated/falsified results appear to be outside the boundaries of what one would normally expect for a particular type of research – that is, too good to be true – data fabrication is then detected through statistical anomalies
- People are aware that the facilities/resources required to actually undertake a program of investigation are simply not available and, therefore, the only way to get results is by falsification/fabrication
- Rumors circulate within a research group, center, department, institute or faculty that fabrication/falsification of work has taken place.

Ironically, despite the fact that one would assume that individuals involved in falsification/fabrication of results would be intelligent enough to cover their tracks, one or all of the above factors often come into play in uncovering academic misfeasance of this kind.

The basic question of suspicion can come down to why a researcher would want to fabricate or falsify results in the first instance. A genuinely high caliber researcher may be unlikely to engage in such misfeasance, because exposure of fraud at this level would irretrievably damage a hard-earned reputation. But then, as has become apparent from numerous

public *outrages* of academic fraud around the world, some people have only become eminent because of that fraud. The picture is therefore more complex than might initially appear to be the case.

For those who have no real track record of success, limited abilities, and a penchant for academic career-climbing, there is perhaps a greater temptation to engage in unethical conduct. Ultimately, if wrongdoing is exposed, then no real career or eminence has been damaged because without the fabrication/falsification there probably would be no career and no eminence.

The process of peer review does not entirely ameliorate the problem of results fabrication/falsification. After all, how can a journal reviewer – perhaps in a different country – possibly determine whether a research paper is based on manufactured or falsified data? The only real checks that can be made on such research integrity are those which are conducted in the immediate surrounds of the individuals undertaking research. Therefore, localized peer review within a research group is a critical, but by no means fool-proof, counter-measure.

There is also, increasingly, a requirement to make raw data available (or to offer it if requested) as a condition of journal publication. This increases that chances of a dishonest researcher being caught out eventually.

In the long run, if fabricated research is published – and nothing comes of the published work – then the damage inflicted is limited. If, however, other research groups expend time, resources and energy pursuing a field of investigation, based upon falsified work published by others, then the implications are far more serious. Even in the best case scenario, however, an individual who fabricates/falsifies research can achieve unwarranted career gains based upon his/her misfeasance.

Needless to say, universities have in place punitive measures to deal with this form of misfeasance once it is detected but the more important issue is how to minimize its occurrence in the first instance.

It cannot be overstated that localized peer review is absolutely paramount in this regard because the further that research moves away from its immediate surroundings, the less scrutiny that can be applied. Localized peer review, however, requires:

- A critical mass of researchers within a group, center, department, institute or faculty
- People who are willing to actively participate in a Socratic learning approach and genuinely challenge results that are presented



- A dynamic learning/research environment where having one's ideas challenged is welcomed by all participants.

These appear to be basic requirements for any university but, in practice, in an environment where staff are all seen to be competing against one another for goals such as tenure; promotion; salary bonuses, etc., they are quite difficult to achieve. They require ongoing, sustained effort and input from all players. In the final analysis, an ability to achieve and sustain such an environment is the hallmark of a good university.

### 13.6 Plagiarism and Failure to Acknowledge Work

A common form of misfeasance that research supervisors need to deal with is the allegation of plagiarism – or failure to acknowledge earlier research – particularly by research students.

There are two potential causes for this misdemeanor. The first is intentional wrongdoing on the part of the individual concerned. That is, an attempt to exploit the work of others for inappropriate personal gain. The second, more common in the case of research students, is a lack of training or awareness in relation to referencing and citations. Clearly, the first cause is a serious ethical issue requiring formal investigation and punitive measures. The second cause requires reflection and consideration on the part of the research supervisor.

In looking at the second cause in more detail, one has to understand that undergraduate learning approaches vary from university to university and, more particularly, from country to country. Some developing countries rely upon rote learning even at university undergraduate level, and there may be little regard for citing work, because it is just automatically assumed that undergraduates are rote learning from the work of others anyway. However, once students enter into postgraduate research programs, there is a responsibility on the part of the supervisor to ensure that students understand the requirements and methods of appropriate referencing.

In recent times, online software checking tools have been used extensively to uncover plagiarism in the university world. These need to be used with some caution because they tend to pick up commonplace sentences and phrases, and allude to plagiarism when in reality it is more a question of people in a particular field developing, and putting into common usage, their own vernacular.

It also needs to be kept in mind that, in any given research field, there are only limited ways in which some concepts can be explained/expressed, and it may be too pedantic to expect a researcher to uncover the *originator* of any particular explanation, particularly when that explanation is really just a blatant statement of the obvious to anyone practicing in that field.

Returning to the first cause – that is, a willful attempt to utilize the work of others for personal gain – the remedial pathways are similar to those that need to be adopted for any other form of misfeasance, specifically:

- Identify formal university definitions of plagiarism, and the processes to be followed in order to resolve any accusations
- Act on the presumption of innocence, unless there is hard,

unequivocal evidence to the contrary

- If practical, meet with the offending party and offer to work with them to determine the cause of any irregularities
- Maintain strict confidentiality at all times, and do not discuss any allegations with parties other than official university officeholders
- If sufficient hard evidence materializes, hand over any formal investigation to authorized university officeholders.

In all these steps, there needs to be a consideration of the motive of the alleged perpetrator – in other words, is there any apparent motive for the misfeasance or is it more likely to be an issue of carelessness or oversight? In particular, in the case of research students, one needs to skew considerations towards carelessness and oversight before act of malice – in which case, the remedy may not be punitive but educational in nature.

### 13.7 Theft of Intellectual Property (IP)

In a strict business sense, the bulk of IP that is generated in the university environment has little or no real value – particularly if there are no instruments available (i.e., venture capital, partnering, sale of intellectual property for royalties, etc.) to convert that IP into a large financial windfall. Every now and then, a university discovery leads to a significant financial win but this is more the exception than the rule.

IP does, however, have other benefits, not the least of which is that it may be used as a tool to help an academic climb the career ladder by virtue of eminence, prestige, international renown/recognition, awards, etc. At a much deeper level, many academics are profoundly committed to their research and betterment of society or technology. The money which academics forgo in terms of direct income is offset by the personal satisfaction of peer recognition and esteem. So, IP does have value across the board, albeit not necessarily a direct monetary value.

The theft of IP therefore goes to the heart of what academics strive for in their work, and the loss that is incurred is far greater than simple monetary short-changing. Theft of IP is effectively an assault on the passion, commitment and dedication of one academic by another.

It is difficult to think of circumstances in which the theft of IP is unintentional. Generally it is a malicious and willful act, and universities should have procedures in place to deal with it. There are some mitigating exceptions, however, that need to be considered.

Consider that academics in a particular field of research generally have similar undergraduate training. They have studied the same subjects, the same theorems, and have often learned similar approaches to problem solving. When they enter into postgraduate research and, ultimately, professional research, academics:

- Read the same journals
- Follow the same investigative pathways that have been trodden by their predecessors
- Apply similar reasoning or logic to extrapolate pathways
- Are surrounded by likeminded individuals working with a common mindset.

It would be surprising therefore if, every now and then, two disparate research groups – perhaps in different institutions or even within the same institution – didn't ultimately come to the same conclusions about a particular research pathway. So, some consideration needs to be given to

the possibility of serendipity taking a hand in creating similar or identical research outcomes – rather than a willful act of IP theft.

Beyond the realm of the happy coincidence, and where the IP theft is clearly willful, it can manifest itself in various forms, including:

- Academics publishing the work of others as their own, without acknowledgement
- Individuals, and particularly businesses, using technologies or approaches developed by academics and protected by various instruments (e.g., patents or trademarks) without acknowledgement or payment of royalties
- Academics claiming the work of others as their own career achievements in order to achieve a promotion
- Academics submitting the work of others for the purposes of achieving awards/prizes.

If an academic views such an act as willful then little can be achieved by confronting the alleged perpetrator directly, and redress needs to come through whatever formal processes are made available by the university for resolution of such disputes. If the disputes involve financial and business interests beyond the integrity of knowledge itself, or are with an external party (e.g., business enterprise), then the matter can become a civil legal proceeding. At this point, the university – should it choose to defend the property of one of its staff – will generally undertake a cost/benefit analysis in relation to defending the IP. At the very least, the institution needs to determine if the defense of the IP is critical to its reputation and ongoing research interests.

If a university elects not to pursue an infringement of IP, then an academic may need to consider whether he/she pursues the matter in a legal sense as an individual. It is unlikely that an academic, as an individual, will be able to rationalize litigation in a cost/benefit sense any more than the institution is able to. Nevertheless, there may also exist issues of honor and integrity that an academic wishes to protect by virtue of a civil litigation.

### 13.8 Misappropriation/Misuse of Research Funds.

Research funding in universities comes from a limited range of sources, notably:

- Recurrent university income from fees and government funding
- Income derived from university endowments and trusts
- Project research funds obtained on a competitive basis from national funding bodies (health and science)
- Project research funding from benefactorial donations
- Project research funding from business/industry for the purposes of undertaking a collaborative research program
- Contract research and development funding from business/industry in order to achieve a particular applied research outcome.

In each case, the terms under which the funding can be expended by an academic staff member are enunciated in either a written, legally-binding contract or through rules, regulations, procedures or national/regional legislation. In other words, regardless of the funding source, there are either career, civil or criminal sanctions available to the entities which provide the funding – if the funding is misappropriated or misused by an academic staff member.

Typically, research grants are awarded for expenditure on a limited range of items, including:

- Procurement of research students, contract research staff (e.g., postdoctoral researchers), or technical and administrative support officers
- Payment for time-release of the academic staff member – often to the university – so that the staff member can participate in the research
- Payment for resources, equipment or consumable items related to the research project
- Funding for travel and attendance at relevant conferences
- Local incidental travel and sundries.

If the purpose of a research grant is to establish a new or larger entity, such as a research center or institute, then of course there is greater flexibility in the discretionary expenditure of funds.

Modern accounting systems readily accommodate the sorts of functions outlined above, and provide tracking of actual expenditure against specific

expenditure types. Nevertheless, there are always those who are naive enough to believe that they can get around the sophisticated accounting software in order to misappropriate or misuse funds. The majority of wrongdoers in this field of misfeasance are eventually caught out by the system, through audit, and the punitive consequences can be extremely serious, up to, and including, criminal sanctions – not to mention termination of employment.

The simple line-in-the-sand with research funding, regardless of its source, is that it is intended for the purposes of conducting research and not, through nefarious means, as a form of personal *bonus* income for academic staff.

A basic tenet of research funding is that no academic can sign documents which would lead to direct benefits to himself/herself – or to willfully mislead a more senior staff member into approving such expenditure – without disclosing a vested, personal interest in the outcome.

Typical schemes which have been commonly established (and ultimately detected through audit) include:

- Establishment of artificial companies (by an academic grant-holder, spouse or colleague) for the purposes of invoicing a research grant, and thereby transferring funds to the grant-holder's personal finances
- Use of funds for travel to conferences which are never actually attended in order to provide a vacation fund
- Use of funds for personal entertainment or travel not directly related to the research project
- Use of funds for non-research items which are of benefit to the grant holder (e.g., home entertainment system or other appliances)
- Use of research grant funds for the purchase of equipment/resources at an artificially inflated price, in exchange for back-hand payments from the supplier to the academic in charge of the grant expenditure.

Innovative as some naive academics may believe these schemes (and numerous others) to be, all can be readily revealed during financial audits, and the consequences can be dire. Unlike many other forms of misfeasance, these issues tend to be clear-cut and, because they are ultimately tied to the release/expenditure of university funds, are always fully documented – with physical or electronic signatures. This means that once the events are identified, prosecution against an individual staff member is highly probable.

### 13.9 Other Areas of Misfeasance

There are numerous other possible areas of misfeasance that a research supervisor may need to contend with during an academic career. These include:

- Cruelty/abuse of animals under laboratory care
- Abuse/bullying/harassment of staff or students
- Failure to comply with ethics procedures (e.g., publishing private information about survey respondents or medical information about experimental subjects).

These tend to be areas which are covered in significant detail by university procedures because they all relate to core university business, and breaches of faith in the conduct of that business. These issues have previously been covered in Chapters 3 and 9. All of these require a resolution approach similar to that which has been outlined in Table 13.1. In summary, this is:

- Act only on objective data, facts, statutory declarations or other written documents and correspondence
- Do not make allegations based upon rumors, hearsay, verbal encounters or innuendo
- As a first step, always work on the assumption of an innocent cause to the problems rather than misfeasance
- Do not make allegations until all the evidence is in and, if possible, after the affected individual has been asked to respond to hard evidence
- Maintain strict confidentiality and only communicate with those who are authorized to deal with privileged information regarding claims
- Keep in mind that any publicly-aired allegations about misfeasance could lead to legal action against the person making the claims – particularly if they are slanderous or libelous.