

Postdoc CVs and cover letters

An EMBL Fellows' Career Service Handout



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Preparing postdoc job application materials

Group leaders seek motivated, independent postdocs with relevant technical skills, and prefer to recruit candidates directly rather than advertising positions. Be proactive in reaching out to them and make sure your application materials are concise and highlight your most relevant skills, to stand out in a competitive job market.

Action Item	Recommendation
Tailor your job application materials for each position.	See Appendix I for a guide on how to get started .
Use a clean and consistent layout – and match the look of the CV and cover letter.	See Box 1 for further tips. See Appendix II for common CV sections/headings. See Appendix IV for country-specific considerations.
Be clear and concise	Use short and concise sentences, and allow time to edit/adjust for clarity and length.
Your CV should inform the group leader about your past and present work experience.	Read our CV section for advice on what to include and how to present this.
Aim to describe the impact and relevance of your research.	Don't just describe the research question/project you worked on, inform the reader about the significance of what you have done.
Highlight relevant technical and non-technical skills (e.g. independence, team work), and achievements.	Illustrate your skills/achievements by providing specific examples (see Box 3), and use action verbs to describe what you did.
Make use of action verbs to describe your work experience.	See Appendix III for a comprehensive list of action verbs.
Your cover letter should persuade that you are the right fit for the position by focusing on your future i.e. your motivation and how your past experience relates to the position you are applying for.	Read our cover letter section for advice on how to write a convincing document.
Add necessary context.	For example: “Led and taught a course in molecular biology to an audience of 100 students from 9 countries which received excellent evaluations (98% would recommend it)”.
Double-check and update your web presence	Make sure your personal blog, X (former Twitter), Google Scholar, ORCID, LinkedIn profile and any other public profile is updated. For computational biologists, keep your GitHub and any other code repository open.
Proofread, proofread and proofread!	Not just spell-check. See Appendix VII for a ChatGPT prompt for improving your cover letter, common spelling and grammar errors + guide to tenses. See Appendix VIII for a final application checklist.

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The Curriculum Vitae

Your CV should provide a detailed account of your career path to date, but be concise and carefully structured so that a superficial glance provides the key information about your work experience, achievements and relevant skills.

DOS

- Break up your CV into logical sections:
 - Ensure that the headings for each section describe the contents well and that the headings are clearly visible.
- Use reverse chronological order for education, work experience, publications, conferences, etc.
- Put the most important things on the first page, and at the start of a section or line, where possible.
- Order and format the entries in a consistent way that highlights your skills
- Use bold sparingly to highlight key information
- Add necessary context and include concrete details where favourable (e.g. number of hours/students taught for each teaching experience/positive feedback from surveys)
- Include page numbers and if more than 2 pages, include your name on each page.
- Check the CV norms in your specific subfield: the structure of a developmental biologist's CV would, for example, be quite different to a mathematical modeler! Ask people in your field if they are happy to share their CVs.
- Check the CV norms for the country in which you are applying (e.g. level of detail expected and whether you should include nationality, marital status) – see Appendix IV for some info related to this.
- Include a hyperlink to your online presence and / or repository (e.g. ORCID, Google Scholar, GitLab, X (former Twitter), LinkedIn, personal webpage).

DON'TS

- Don't write CV or Curriculum Vitae in a big font at the top of your first page
- Don't overuse formatting elements: when used sparingly, these can highlight key aspects of your experience, but overuse can distract the reader.
- Don't use a picture on your academic CV.
 - Unless you know that this is expected - in most cases, it is not - see Appendix IV for some info related to this.
- Don't make the information too dense. Keep the font size and margins at a reasonable size (ideally at least 2 cm); use white space to group information and avoid overcrowding.
- Use lots of space for your contact details. Save space by providing only one phone number/ email/address. You don't need to add a label to that information (e.g, writing "Email address: ismyemail@gmail.com") – it's obvious that is your email. Just provide the info or use icons.

Choosing a layout and structure

Box 1: How structure and formatting can change the first impression

Changing what is in bold and/or rearranging the order can help you highlight different things in your entries – e.g. the institutes you were trained at, the people you have trained under, the topics you have worked on, or the fellowships you have received. Think about which information is more relevant to highlight and decide which order/format would be most beneficial to your application. Apply this format to all entries.

For example, if you want to emphasise your research field, these two possibilities might be good:

2014 – present EIPOD Postdoc | Bloggs Lab | EMBL Heidelberg
Structural biology

Or

2014 – present **EIPOD Postdoc | Structural biology**
EMBL Heidelberg

but if you wanted to highlight the institutions/team where you have worked, the following might be better:

2014 – present **EMBL Heidelberg | Bloggs Lab**
EIPOD Postdoc, Structural biology

See our [EMBL Careers Blog](#) on 'Choosing the best layout for your CV' for further details.

Content and considerations for each section

This advice is largely based on two surveys that the EMBL Fellows' Career Service designed and circulated among academic group leaders. A summary from both surveys - along with some of the advice gathered from academic-related activities organised at EMBL - can be found in the following EMBL Careers Blog posts:

- 1) [What to include in your CV – an international perspective?](#) (98 group leader responses)
- 2) [How do group leaders recruit postdocs?](#) (44 group leader responses)

You can find one example of a postdoc CV in Appendix V that follows our advice.

Profile

- Consider a summary profile to put your career path and research interests in context, particularly for unsolicited applications.
- This section should summarise your previous research experience, provide an overview of your technical expertise, outline your research interests, and briefly present your future career plans.
 - Example 1: *'My previous research has centered on elucidating the molecular mechanisms of host-pathogen interactions using structural biology and biophysical techniques. During these projects, I developed an interest in metabolic host-pathogen crosstalk, and I would like to work on metabolic signaling in my next postdoc, before establishing an independent group in the area of pathogen manipulation of host metabolism.'*
 - Example 2: *'My PhD research focused on investigating RNA localization and degradation, using biochemistry, molecular biology, and advanced microscopy techniques. For my first postdoctoral position, I am motivated to explore mRNA secondary structure and its impact on RNA processing and post-transcriptional regulation.'*

Education

- Keep this section short and concise.
- Institution, degree, country and dates should be included and accurate.
- For ongoing degrees, include expected graduation date.
- In many countries (e.g. Germany), Group Leaders still look at/want to see university grades. Include them if they were good but be sure to provide them in a way that can be easily interpreted (e.g. Grade 1,0 (*Magna cum Laude*) or Grade 1,0 | Top 1%)

Education		
PhD Biophysics Joint degree EMBL and University of Heidelberg, Germany	Oct 2020-Oct 2024	Thesis: XXX
MSc Chemistry TU Munich, Germany	Oct 2018-Sept 2020	Thesis: XXX
BSc Chemistry Universidad Autónoma de Madrid, Spain	Oct 2015-Sep2018	Thesis: XXX

Professional/Work/Research experience

- This section should include your role, institution, department or unit, dates, country, supervisor and research topic.
- Think about which information is more relevant to highlight and decide which order/format would be most beneficial to your application.
- It should be clear which research projects you have participated in.
 - In some countries (e.g. Portugal, Spain), this can be an independent section requested by National Funding Agencies that should list the main Group Leader of the project, your role, project number, funding source and brief project description.
- Don't just include a dry project title – use bullet points to make sure that the impact/relevance of your work is clear (see example in Appendix V). Ask yourself:
 - What did your research uncover?
 - What impact has it had on the field?
 - How did you advance the state-of-the-art of your field?
 - What can the field now do that it could not do before? (Particularly for technology-based projects)
- Consider including examples that show capacity to work independently, team work, and/or drive (see Box 3 for more details):
 - Example 1: *'Developed a successful fellowship proposal, attracting 30K from 'La Fondation Médicale' to fund my PhD work (10% success rate).'*
 - Example 2: *'Supervised and trained 3 MSc students on structural biology techniques who quickly became autonomous, contributing to open a new research direction in the lab, and one peer-reviewed publication'*

RESEARCH EXPERIENCE	
Postdoc, Imperial College London	Oct 2015 – present
Mentor: Prof. A. Mappé Main collaborator: GSK, Cambridge, US	
Research topic: Identification and characterization of inhibitors of fizzl signaling	
<ul style="list-style-type: none">• Established a high-throughput assay to identify molecules from a fragment library that bind to the active site• Solved the crystal structures of fizzl bound to several fragments• Initiated a collaboration with GSK to explore structure-function relationships and design a potential effective inhibitor using AI-based approaches• Developed a fellowship proposal and awarded an EMBO fellowship to fund this work.	

Technical skills

- A realistic and truthful description of your technical skills should be gained either from the research experience section or explicitly provided in a separate section. Note that a too long list of technical skills was found off-putting by some Group Leaders, and is also less important for more senior applications (e.g. faculty positions).
- Structure your list well and focus on the most relevant techniques/those where you have expertise.
- Skills should not be quantified as percentages or using symbols (e.g. stars). For programming skills, consider providing years of experience.

<p>Technical skills</p> <hr/> <p>Protein biochemistry: recombinant protein design, engineering, and expression in various systems including bacteria, insect, human and plant cells as well as protein purification using Akta, FPLC and HPLC chromatography systems.</p> <p>Protein crystallography: crystal optimization, co-crystallography, soaking, dry-soaking, high-throughput screenings, crystallization robotics, data collection and processing.</p> <p>Biochemistry and biophysics: protein-protein interactions, batch crosslinking and mass photometry. Fluorescence polarisation, AFM and electron microscopy.</p> <hr/> <p>Technical skills</p> <hr/> <p>Programming and software:</p> <ul style="list-style-type: none">• R: pandas, scipy, numpy, matplotlib, scanpy (Advanced, 5 years of experience)• Python: Bioconductor, tidyverse, ggplot, Seurat, (Advanced, 4 years) (Intermediate, 2 years)• High performance cluster and cloud computing: Slurm, PBS, Unix/Bash, Jupyter <p>Mathematics and statistics</p> <ul style="list-style-type: none">• Mathematical modelling and Bayesian statistics• Machine learning - supervised and unsupervised <p>Domain knowledge and databases:</p> <ul style="list-style-type: none">• Immunotherapy• Databases and data sets: TCGA, DepMap, CCLE• Literature databases: Google Scholar, Scopus
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Scientific publications

- Publications should be listed in reverse chronological order (most recent first) – ideally with a link or DOI to make them easily accessible.
- The type of publication should be clear (e.g. whether something is an original research article or review):
 - one option, which can highlight your research contributions, is to separate your publication list into subsections: with one subsection for peer-reviewed research articles, and one or more subsections for other types of publication (preprints, reviews, book chapters, outreach articles, opinion pieces, conference proceedings – with a label for each publication indicating which type it is).
- There is some debate about whether it is okay to include manuscripts in preparation in your CV.
 - **For postdoc applications:** 80% of the respondents to our survey on postdoc recruitment, said that it is okay to include publications in preparation. However, many included in the free-text comments that this should only be done if these will be submitted in the next months (DO NOT “list of titles of future papers that do not exist”) and these manuscripts are in a clearly marked subsection (where you can also list papers under review). People providing references should also be able to confirm the status of the publication(s).

- Note: the Group Leader may ask you to share the current draft, please discuss this if your supervisor before providing. You could also consider proactively asking your Group Leader in advance and including a PDF with your application.
- You can also include papers in submission (including a short statement on status) and preprints – BUT these should ideally be in a separate subsection (either one for both papers in submission and preprints, or two separate sections). Once a paper is accepted, it can be listed with the other peer-reviewed publications (labelled as *accepted* or *in-press*).
- Highlight your name in bold so that your place in the author list is clear. You can also consider highlighting the year and the journal.
 - Many applicants change the order of authors for publications where they share joint first authorship but are listed second in the author list. Most academics see this negatively, instead clearly mark the joint first authorship in bold or with an asterisk.
 - You can consider including metrics for your papers and overall publication list (citations, h-index etc). However, many (but not all) institutions now discourage the use of journal impact factor in applications (see Box 2). We advise you to find out how research productivity is measured in the country/institution/funding agency you are applying for, and to take that into account when deciding which (if any) metrics to include.
- If the list of publications is too long, consider including a summary of your full publication record along with a list of selected publications and a hyperlink to an online list (e.g. ORCID, Google Scholar). Alternatively, you can include all your publications in an Appendix at the end of your CV.

PUBLICATIONS

8 publications, including 3 peer-reviewed first-author research articles. For a full list of publications see my [ORCID \(xxxx-xxxx-xxxx-xxxx\)](#)

Preprints and submitted articles

- **XXX et al.** 2023 Title **bioRxiv** DOI: xxxx (**under revision** in Journal)
- **XXX et al** Title (submitted to Journal)

Peer-reviewed research articles

- **XXX et al.** 2022 Title. **Journal** 89(1):1556-1571 DOI: xxx
- **XXX et al.** 2020 Title. **Journal** 77(3):283-287 DOI: xxx
- **YYY, XXX*.et al** 2014 Title. **Journal** 77(3):283-287 DOI: xxx * **co-first authors**
- **XXX et al.** 2020 Title. **Journal** 77(3):283-287 DOI: xxx
- **XXX et al.** 2020 Title. **Journal** 77(3):283-287 DOI: xxx

Other publications

- *Book chapter: "Title of Chapter: Subtitle of Chapter." Title of Book, edited by Editor of Book, Publisher, Publication Date, page numbers.*
- *Review: XXX et al.* 2022 Title. **Journal** 89(1):1556-1571 DOI: xxx

Honours and awards

- List prizes, awards, invitations to speak at institutes etc
- May also include fellowships/other funding you have attracted if these are not included in a separate section (see below)

Invited Speaker: Single-cell structural variation landscapes to explore complex genomic rearrangement processes. (2019) WIMM: Weatherall Institute of Molecular Medicine, Radcliff Department of Medicine, University of Oxford; Oxford, United Kingdom.

Funding

- List of funding attracted – including funding agency, type of funding (e.g. grant, fellowship, travel award etc), dates, your role (PI, co-PI), and if favourable the total amount (€100K).
- You can also consider including the success rate for the fellowship or grant you have attracted.

Scientific conferences

- Consider grouping by type: “Invited Talk”, “Poster”, “Oral presentation” etc
- Title of oral presentation/poster
- Name of conference
- Year, location and country
- Alternatively, providing a summary along with highlights can be an effective strategy (e.g. ‘6 poster presentations and 2 oral presentations at international conferences’ followed by a list of ‘Selected contributions’).

Other relevant sections

The following sections can also be included if you have additional points that are relevant for the application (see Box 2). These sections should be well structured, and contain the most relevant information – in many cases these would be subsections grouped under one or more relevant overarching headings (Scientific service, Teaching and supervision, Outreach, Contributions to the scientific community).

- Teaching activities
 - Your role (instructor, assistant), your tasks (e.g. course design and implementation), student’s background and type of class (size + format (e.g. workshop, classroom, lecture)).
- Examining [only for teaching-focused roles]
- Mentoring responsibilities
 - Number of students of each type (e.g. 3 MSc students, 3-6 month placements), mentoring tasks (e.g. data analysis, paper composition)
 - You may also consider mentioning good outcomes e.g. highly marked dissertation, publications, career outcomes of the mentee (e.g. if you have supervised a MSc student you can briefly explain what the next career step of the mentee was (e.g. pursuing a PhD at a different institution, position in industry R&D)
- Scientific courses attended
 - Include course title, year, and country.
- Conferences participated in
 - Early in career only, for more advanced applications only include relevant conference presentations).
- Outreach and science communication
- Event organisation (e.g. PhD Symposium, PhD Gala, seminar series, journal club)
- Leadership activities (e.g. PhD representative)
- Patents
- Peer-review activities
- Volunteer activities
- Certificates:
 - E.g. Official certification to perform laboratory animal research.

Box 2: Rethinking research outputs

In the last decade, there has been increased discussion within the scientific community on good practices in research assessment. In particular, there has been strong critic of the use of journal impact factor as a proxy for research quality. The [San Francisco Declaration on Research Assessment \(DORA\)](#), which was developed in 2012, focusses on this issue and has been signed by over 3000 organizations - including funders, publishers, professional societies, institutions (including EMBL) - and more than 20000 individual scientists in 165 countries. It includes a range of recommendations, including:

“Do not use journal-based metrics, such as Journal Impact Factors, as a surrogate measure of the quality of individual research articles, to assess an individual scientist’s contributions, or in hiring, promotion, or funding decisions.... For the purposes of research assessment, consider the value and impact of all research outputs (including datasets and software) in addition to research publications, and consider a broad range of impact measures including qualitative indicators of research impact, such as influence on policy and practice.” [Extract from the San Francisco Declaration on Research Assessment](#)

Moreover, the [Coalition for Advancing Research Assessment \(COARA\)](#) was formally launched in 2022 with more than 300 signatory organisations to its agreement ([including EMBL](#)). This initiative aims to maximise the quality and impact of research by setting a shared direction and shared commitments and timelines for changes in assessment practices. Many institutions and funding bodies have made [changes](#) to assess research accordingly, and different bottom-up approach initiatives have been launched to provide a platform for mutual learning and collaboration on specific thematic areas. For example, some funding bodies now ask for narrative sections or full narrative CVs rather than traditional ones.

While these are not yet common for applying to postdoc positions, if you are applying for independent fellowships, you may be asked for a full narrative CV or to incorporate narrative sections in your CV (e.g. to explain the relevance of your key research outputs). The aim of this format is to allow applicants to focus on their motivation and describe their contributions more broadly than in a traditional CV (where the focus is often first on the publication list and funding attracted). To learn more about these please see:

- [Quality over quantity: How the Dutch Research Council is giving researchers the opportunity to showcase diverse types of talent](#) - DORA
- [Résumé for Researchers](#) - The Royal Society and [Biosketch](#) - NIH
- [Writing a narrative CV: a few tips](#) - University of Glasgow
- [Narrative CV implementation and feedback results](#) - Luxembourg National Research Fund

Given this increased emphasis on a broader assessment of research outputs, you can consider highlighting the following in your traditional academic CV:

- Non-publication scholarly outputs including:
 - Preprints
 - Datasets
 - Protocols
 - Software
 - Research materials
 - Teaching and mentoring activities:
- Scientific service in your community/institution
 - Organization of conferences, journal clubs, etc
 - Participation in working groups
 - Peer review activities
- Any societal or policy impact your work has had:
 - Outreach & public engagement (e.g. events, public talks, social media)
 - Technology transfer (e.g. patents, inventions, industrial partnerships, spin-outs)
 - Policy reports

While we encourage to think broadly about your research outputs, be aware that, unfortunately, many institutions still rely on metrics (including JIF) for research assessment. See e.g. <https://doi.org/10.1136/bmj.m2081>; <https://peerj.com/preprints/27638v2/>; <https://eua.eu/resources/publications/888:research-assessment-in-the-transition-to-open-science.html>

References

- List of 2-5 people who have worked with you during your career and can provide a positive reference. They should be able to comment on your aptitude for research.
- Ensure you ask each person in advance, before including them on the CV.
- Include their full names, titles, professional relationship with you, institutions and contact information (phone number and email).
- For postdoc positions, this would normally be your supervisor, the Thesis Advisory Committee member(s) that know(s) you and your work best and/or your Master's thesis supervisor.
- Help your references – they are busy!
 - Give your referees at least 2-weeks to write, longer for first one.
 - Request by email with subject line: *Reference letter for XXX, deadline XXX (with time and time zone)*
 - Include updated CV
 - Position you are applying for
 - Who your other references will be
 - For unsolicited applications, be sure to keep your PI updated on the labs you are reaching out.
 - If you think this can be appreciated, let them know what they should emphasise.
 - Give clear instructions on submission:
 - Should they send an email directly (to whom?)
 - Will they get an email request (from whom?)
 - What format ? PDF letter or a form (what will the questions be?)
 - Don't be shy to send reminders.
 - Sometimes, the recommendation letter can be replaced for a phone call (discuss this with your PI).

Your cover letter

Don't use the cover letter to just summarize your CV. Your cover letter aims to persuade, put your application in context, and explain what cannot be seen in your CV (e.g. your personality and motivation for the position, including how these fits to your long-term career aims). A cover letter should be an example of your best writing and should:

- set you apart from all other candidates
- be used to highlight and expand on how your experience and motivation match the position
- provide a glimpse into your personality
- provide further evidence that you can communicate in an organised and effective way
- for postdoc applications, 1-page should be sufficient.

To get started with the cover letter, we suggest:

1. Reading several examples of cover letters for positions at the same career stage/field as you. You can find one example of a postdoc cover letter in Appendix V that follows our recommended structure.
 - a. **Do NOT copy large sections from templates.** This is plagiarism, and you want your application to be written in a way that highlights YOUR unique selling points, and reflects your own style of communication. If you copy the exact structure and wording of well-publicized examples, the group leader/selection committee are likely to notice that it's not your work.
2. Considering what points you want to bring across. Use Appendix I to get started with your applications.
3. Working on a narrative that will bring across these points, and provide specific examples from your work experience.

DOS	DON'TS
<ul style="list-style-type: none">• Prepare a formal letter with a letterhead: on the top-left side, include Group Leader's address. On the right side, provide your contact information.• Include the title and any reference number for the position you are applying for.• Sound positive and consider changing:<ul style="list-style-type: none">- 'could' 'would' 'may' to 'can' 'will'- remove any double "hedgies" (this may possibly, this may)- avoid "I had the opportunity to visit", simply "I visited"• Visualize where you may be adding unnecessary details by printing out your draft and highlighting the parts that addresses the most important requirements.	<ul style="list-style-type: none">• Feel you have to cover all the requirements for the position; focus on the main points and make sure your CV backs up anything you did not mention.• Leave the most important things until the end, they might not read that far!• Start every sentence with 'I': having the same sentence structure doesn't read well. Overuse of 'I' may also indicate that you are not showing teamwork and / or are focussing on what you will gain from the position rather than what you will bring into the lab.

Cover letter layout and structure

The structure of the cover letter generally comprises four sections:

Introduction: If written effectively, it will encourage the group leader to read the rest of the letter.

- This section may include details about how you learnt about the position, your current role, lab and institution. It may also include a short 1-2 sentence of the key selling points of your application.
- Consider including a summary of the most important technical skills you have that fit to the project; or describe your experience in a relevant field for the lab.

Why me?: This is one of the main sections of the cover letter, which has to be tailored to the postdoc role or lab:

- This should include a short summary of your previous research, focusing on the topics and/or technical skills that are most relevant for the lab you are applying to.
- You should focus on the results and describe your work in a way such that the impact of it is clear, and you ideally give the impression that you are independent, collaborative, motivated and capable of finishing projects. Show versatility and consider including examples that show independence, team work, and drive (see Box 3).

Why here?: This is the most important paragraph of the cover letter!

- Explain why you are interested in joining this lab, and what you hope to get from the postdoc position.
- Ideally (particularly for unsolicited applications – see example in Appendix VI) you should propose a project direction and describe how this provides a good link between your specific research interests and those of the lab you are joining.

Closing: Be positive, include your availability to start working, and state your desire to provide further information and discuss the position in an interview. Finally, offer thanks for the consideration of your application.

- For unsolicited applications, offer yourself to present your work and show willingness to apply for independent postdoctoral fellowships (see example in Appendix VI).

Appendices

Appendix I: How to get started on your postdoc application materials

- 1.If you are applying for an advertised position, highlight keywords and technical skills from the advert.
- 2.If you are sending an unsolicited application, research the topics and techniques of the lab.
 - a. Think about how your skills fit or complement the existing expertise in the lab, and your motivation to join them.
- 3.Use the worksheet below to summarize the information gathered, and how you meet their criteria.
- 4.Use this information – as well as the general recommendations and DOs and DON'Ts to write your application materials.
- 5.Use the checklist in Appendix VIII to help spot anything you have overlooked.

1) What is the group leader looking for? What makes you a good fit?

Skills/experience they require	Examples from your work experience

Skills/experience not mentioned but can benefit the project/team	Examples from your work experience

2) What attracts you to the postdoc position and or the lab?

-

3) What are the main points you would like to bring across in the cover letter?

(If possible, these should be emphasised in your CV and incorporated in the first paragraph of your cover letter)

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Appendix II: Common CV sections/headings

- These can all be renamed, combined/split or otherwise adapted.
- In particular, 'selected' or 'relevant' can be inserted if you choose not to list everything.
- In the US and UK it is traditional to include the publications as the second last item, followed by references. US applications often have Education as the first section (occasionally preceded by the current position).

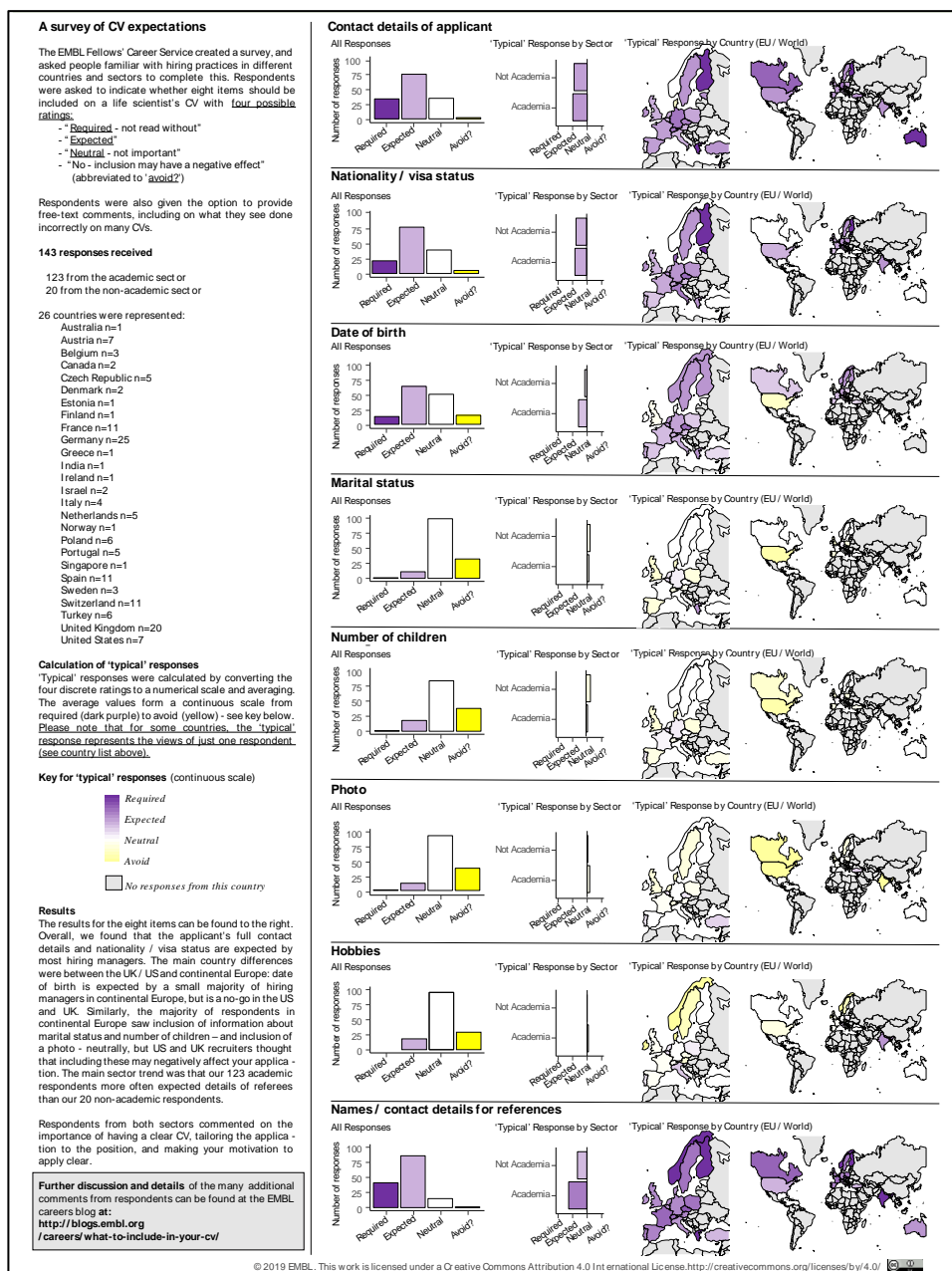
- Personal details
- Career Highlights
- Background
- (Personal) Profile
- Research Overview / Interests / Synopsis
- Academic Interests
- Teaching and Research Interests
- Professional Overview
- Key Capabilities
- Personal Statement
- Research (Experience)
- Professional Experience
- Employment
- Academic Appointments
- Work Experience
- Research Visits
- Research Stays
- Short-term Research Visits
- Education
- Educational Background
- Educational Overview
- Qualifications
- Professional Studies
- Degrees
- Academic Training
- Higher Education
- Continuing Education
- Internships
- Teaching (Experience / Overview / Interests)
- Courses Taught
- Mentorship
- Supervision Experience
- Management Experience
- Methods
- Techniques
- Technical Expertise / Skills
with subsections e.g. cell biology, biophysics
- Publications with subsections, e.g.
 - Original peer-reviewed research papers
 - Papers in submission
 - Preprints
 - Books / Book chapters
 - Reviews
- Ongoing projects
- Patents
- Intellectual Property
- Scholarships
- Fellowships
- Academic Awards
- Distinctions
- Honours
- Awards
- Prizes
- Funding
- Grants
- Conference Presentations
- Presentations, possibly with subsections e.g.
 - Invited talks
 - Oral
 - Poster
- Selected Courses and Conferences Attended
- Courses
- Professional Development
- Certification
- Certificates
- Training
- Qualifications
- Administrative Experience
- Academic Service / Administration
- Professional Service / Activities
(Departmental) Service
- Scientific Service
- Positions of Responsibility
- Contributions to the Scientific Community
- Leadership
- Professional Memberships
- Memberships
- Affiliations
- Professional Organizations
- Memberships in Scientific Societies
- Professional Competencies
- Proficiencies
- Skills
- Competencies
- Languages
- Industry Collaborations
- Consulting services
- References
- Appendices e.g. for a faculty position
 - Research / Teaching / Diversity statement
 - Full publication list

Appendix III: Action verbs

Choosing an approach	Investigating	Research outputs	Project leadership	Working with people	Improved processes	Organising	Writing	Persuading	Teaching
Adapted Adopted Converted Combining Customized Designed Developed Validated Modified Using	Evaluated Examined Explored Investigated Researched Studied	Achieved Addressed Attained (funds) Calculated Characterized Clarified Completed Contributed Demonstrated Detected Determined Described Discovered Enabled Gained Generated Identified Mapped Measured Observed Obtained(funds) Predicted Produced Proposed Published Quantified Reconciled Resolved Secured (funds) Solved Tracked Visualized Won (grant)	Advised Built (a new) Chaired Clarified Coordinated Created Designed Developed Devised Directed Established Evaluated Expanded Facilitated Founded Guided Improved Increased Initiated Introduced Led Managed Overhauled Oversaw Pioneered Planned Proposed Remodeled Resolved Responsible for Shaped Spearheaded	Advised Aided Bridged Coached Collaborated Communicated Consulted Contributed Cooperated Coordinated Facilitated Fostered Guided Helped Interacted Liaised Listened Mediated Mentored Moderated Participated Partnered Provided Recruited Supervised Taught Trained	Accelerated Advanced Amplified Boosted Consolidated Eliminated Enhanced Expanded Expedited Furthered Generated Improved Increased Refined Refocused Remodeled Reorganized Simplified Standardized Streamlined Strengthened Systemized Transformed Unified Updated Upgraded	Achieved Administered Anticipated Arranged Centralized Coordinated Embedded Evaluated Executed Formalized Generated Handled Implemented Incorporated Merged Organized Planned Prioritized Produced Provided Ranked Recorded Retrieved Scheduled Screened Volunteered	(co)Authored Composed Critiqued Defined Documented Drafted Edited Formulated Illustrated Reported Reviewed Summarized Wrote	Addressed Convinced Debated Discussed Influenced Lobbied Marketed Negotiated Persuaded Promoted Publicized Launched	Adapted Advised Clarified Coached Communicated Conducted Coordinated Critiqued Developed Enabled Encouraged Evaluated Explained Facilitated Focused Guided Individualized Informed Instilled Instructed Motivated Persuaded Set goals Simulated Stimulated Taught Tested Trained Transmitted Tutored
Experiments	Data						Informing	Communicates	
Carried out Conducted Executed Located Measured Monitored Operated Performed Piloted Planned Programmed Tested	Analyzed Calculated Collected Compared Determined Evaluated Generated Gathered Integrated Interpreted Organized Processed Surveyed Searched						Briefed Clarified Defined Described Explained Lectured Presented Reported Spoke Summarized Updated	Accentuated Advocated Articulated Clarified Conceptualized Conveyed Defined Emphasized Enlisted Expressed Formulated Outlined Presented Solicited Specified Spoke Synthesized	
Skills	Equipment								
Acquired Specialized	Assembled Built Computed Constructed Maintained								

Appendix IV: What should be included in a CV – country-specific considerations

Based on a survey of academic and non-academic hiring managers and others familiar with hiring practices for the life sciences, we provide below information on the range of opinions on various CV aspects. You can find a detailed summary of the survey in the [EMBL Careers blog](http://embl.org/careers/blog/).



Appendix V: Annotated example application

Please note that examples should be used for inspiration. The contacts, order and titles of your sections should largely be dictated by your content and NOT by this template.

Use headings with the contact information of the group leader and yourself. Include also the date.

Prof. Bloggs
Institute of Structural Biology
Building 43b
Ingolstaedter Landstrasse 1
D-65764 Würzburg

Rebecca Müller
69232 Heidelberg
rebeca.muller@embl.de

Key aspects to bring across: relevant techniques, additional skills/experience, results, significance, action verb, motivation, potential research directions

Postdoc vacancy: Multidisciplinary structural biology of signal transduction

14 April 2024

Some people say that starting with the position you are applying for is a waste of space. We think it's important just in case they have multiple positions open. Include also the title of the postdoc vacancy.

The first paragraph should mention your current role/lab/institution and summarize why you are a good fit for the position to encourage the reader to continue reading.

Dear Professor Bloggs,

I am currently a postdoc in Max Musterman's lab at EMBL Heidelberg and am writing to apply for the postdoc position you have recently advertised on the CCP4 bulletin board. During my postdoc and my PhD at MRC LMB, I have applied Small-Angle X-ray Scattering (SAXS), X-ray crystallography, biophysical techniques such as ITC and fluorescence polarization and BiolD assays to protein complexes and protein-protein interactions.

The aim of my PhD work with Nate Dooley was to characterize HGKS1, the protein responsible for attachment of the Ixso virus to host cells and identify its target. I successfully solved the crystal structure, which showed an unexpected homology to the Influenza HA protein, a membrane protein that binds to sialylated glycoproteins. Using ITC and fluorescence polarization-based assays, we then demonstrated a strong binding between HGKS1 and isolated glyco-peptides. We also used a BiolD screen to identify a specific target of HGKS1 found at the surface of gastrointestinal cells. Structure-directed mutations were then generated that target the putative HA-like binding site to confirm the possible HA-like binding mechanism. Identification of this target and its putative binding mechanism are an important first step for future drug development, and the project resulted in 3 papers, including a first author NSMB paper.

My current postdoc work focuses on SDOG1, a previously uncharacterized protein from the zoonosis virus. In collaboration with the lab of SF Taylor, we have demonstrated a high affinity interaction and stable complex with HKA4, a protein involved in the NF-κB transcription pathway. By establishing SAXS as a new technique in the lab, I was able to collect data on the HKA4-SDOG1 complex at EMBL Hamburg and model the structure. Mutagenesis of HKA4 residues close to the putative binding interface reduced binding and disrupted NF-κB signalling, suggesting that this interaction is important for signal transduction. I now have a preliminary cryo-EM structure of a complex of SDOG1, HKA4 and another interacting protein, which will be ready for publication by spring.

I have high motivation and commitment to working on challenging problems, where affinity for team-work, creativity and collaboration can help drive projects forward. For example, I selected the HGKS1 project knowing that attempts to produce homogeneous HGKS1 had failed previously and I worked closely with the protein production facility at the MRC LMB to overcome these problems.

Working on HKA3-SDOG1, I have become very interested in the signalling field, and would like to move towards the interface of virology and signalling. A postdoc in your lab would enable me to deepen my subject knowledge in this area. I found your hypothesis that xyz influences abc to be particularly interesting, and could envisage applying my expertise in studying protein-protein and protein-ligand interactions to this or other projects in your lab.

I would be available to start work from September 2017, and look forward to hearing from you about my application.

With best wishes

Rebecca Müller

Focus on motivation for this specific lab, and potential research directions.

End on positive note, and consider including your availability.

Team work, drive and independence are qualities that group leaders also look for. Make use of action verbs.

Describe your previous research experience. We advise focussing mainly on your results and significance of the work, and mentioning specific techniques/experience that were used and could benefit the new project/team. Make use of action verbs.

A summary profile can help to put your career path and research interests in context. For postdoc applications, it should clearly outline your motivation.

Joe Bloggs

My previous research has centered on elucidating the molecular mechanisms of host-pathogen interactions using structural biology and biophysical techniques. During these projects I developed an interest in metabolic host-pathogen crosstalk, and would like to work on metabolic signaling in my next postdoc, before establishing an independent group in the area of pathogen manipulation of host metabolism.

Research Experience

Oct 2014 - present

Ask yourself what you want to highlight in this section. Use bold and consider changing the order of the information according to its relevance. See box 2 on previous page for further advice.

EMBO-funded Postdoctoral Fellow | Supervisor: Max Mustermann
European Molecular Biology Laboratory, DE

- Research areas: host-viral interactions – characterized SDOG1, a zoonotic virus protein that interacts with host vasculature through HKA4
- **Led** biophysical and structural biology research project in an international, interdisciplinary **collaboration**, coordinating communication between 4 labs across 3 different countries
- **Established the critical residues** for HKA4 interaction, which may offer an **avenue for future therapeutic developments**

Sep 2009 - Sept 2014

You can use your research experience section not just to highlight your areas of expertise, but also to highlight the **significance** of your work for the field. Action verbs can also help you to highlight key skills such as **collaboration & independence** (see box 1 in cover letter section / appendix IV)

PhD Candidate | Supervisor: Meg South
MRC Laboratory for Molecular Biology, UK

- Research area: bacterial toxins – used biochemical assays and structural biology to study the mode of action of HGKS1 a peptide toxin from *S. aureus*
- **Established** that HGKS1 inhibits the top-channel protein expressed by villi, and **uncovered the molecular mechanism** by solving the crystal structure, and using structure-directed mutants and biochemical assays

Oct 2008 - Jul 2009

You can use bullet points or a short paragraph to give an overview of the research you did in each position – but use the same format for each entry.

Graduate Researcher (Master's Thesis Project) | Supervisor: Sam North
University of Bristol / GlaxoSmithKline, UK

- Research area: plant development / fungal toxins
- **Developed** a protocol for expression of a protein involved in plant development, and characterized its interaction with a fungal toxin using various biophysical techniques
- The protocol resulted in a patent (UK253479 | Issued: 1 January 2010)

Education

Sep 2009 - Sep 2014

PhD | Structural Biology
MRC Laboratory for Molecular Biology, UK

Oct 2005 - Jul 2009

MSc | Biochemistry | Grade: first-class honours
University of Bristol, UK

Technical Skills

Protein expression

- Use of *E. coli* and insect cells expression systems, affinity purifications, HPLC

Structural biology

- Crystallography (including heavy metal phasing) **or** **EM, SAXS, cryo-EM, SAXS, model building**

Biophysical techniques

- ITC, fluorescence polarization, FRET

Molecular biology

- PCR, cloning, site-directed mutagenesis,

Clearly separate peer-reviewed research articles, and other outputs (e.g. preprints, book chapters, reviews, protocols) western blots

Scientific Publications

Preprints:

1. **Bloggs J**, Jones P, Taylor SF, Musterman M (2020). Novel interaction of HKA4-SDOG1 through HKA4 ksJ domain. **bioRxiv** doi:10.1000/xyz123 (under review?, Cell Reports)

Peer-reviewed research articles:

1. Jones P, **Bloggs J**, Taylor SF, Musterman M (2015). SDOG1 regulates transcription of viral proteins following infection with the zoonotic virus through interaction with HKA4. **J. Virology** 521:1-11

Save space by including contact details in the footer, or e.g. at the side in a header.

Joe Bloggs | Musterweg 6, D67115 Germany | +49176 5646 1234 | bloggs545@gmail.com

2. [Bloggs J](#), Smith P, Cooper A, Dooley N, South M (2014) HGKS1 binds to sialylated xiaos **J. Cell Bio** 15:54-65
3. de Waal AJ*, [Bloggs J](#)*, Smith P, Barker M, Cooper A, South M, Dooley N (2013) Architecture and ligand binding site of HGKS1. **Nature** 521:1-11 * **joint first authorship**

Reviews

Do NOT switch the order of authors on joint authorship papers!

1. [Bloggs J](#), South M (2014) Role of silylation in pattern recognition **Nature Reviews Biochem.** 15:54-65

Honors and Awards

- 2014 - 2016 **EMBO Long -Term Fellowship**
Personal merit fellowship covering own salary (14% acceptance rate)
- 2015 **Best poster** EMBL Conference | Host microbe interactions | Heidelberg, DE, 12-14 Sep 2015

Scientific Presentations

Selected conference presentations:

Use bold sparingly to highlight key details

- 2018 **Keystone Symposia, Host-microbe interactions** | Snowmass, US, Jan 2018
SDOG1 interaction with HKA4 is mediated by a conserved HGHP motif
- 2012 **S. aureus Biology Meeting** | Lancaster, UK, Oct 2012 | **invited talk**
S. aureus HGKS1 toxin inhabitation of top-channel: a future target for antibiotics?

Selected poster presentations:

- 2015 **EMBL Conference | Host microbe interactions** | Heidelberg, DE, 12-14 Sep 2015
Molecular mechanism of HGKS1 toxicity | best poster award

Professional Development

Selected training courses

- 2015 EMBO Practical Course: Cryo-EM, Heidelberg - Apr 2015
 2010 CCP4 Crystallography Summer School (2-week course) - Jul 2010
 2009 Convincing Scientific Presentations - Jul 2009

Consider separating the year for all entries, in a left or right aligned column, so that the reader can quickly see when you have done each thing, and how it fits into your career path.

Scientific Service

- 2018 - present Postdoc committee representative
 2012 - 2015 Organizer of the Structural Biology Department seminar series
 2011 - present Contributed to 6 outreach events

Add quantification & context to help the reader understand the scope.

Teaching and Supervision

- 2017 - present Instructor in 4 EMBL Cryo-EM internal courses (3 teaching hours / module, lab-based courses)
 2016 Tutor (2 modules) - Practical Course: Protein expression and purification, MRC-LMB
 2013 - present Day-to-day supervision of 1 undergraduate student (9 months), 1 master's student (12 months) and 1 PhD researcher (2-years).

Languages and Nationality

German (native), English (fluent – working language for 6 years) | Nationality: Austrian-UK dual national

References

Current postdoc supervisor:
Max Mustermann
 EMBL
 Heidelberg, Germany
max.mustermann@embl.de
 +49 6221 387 1111

Current collaborator:
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 Instituto Gulbenkian de Ciência
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 +351 21 440 7900

PhD supervisor:
Meg South
 MRC LMB
 Cambridge, UK
m.south@mrc.ac.uk
 +44 121 6578 5135

Joe Bloggs | Musterweg 6, D67115 Germany | +49176 5646 1234 | bloggs545@gmail.com

Appendix VI: Annotated postdoc cover letter for unsolicited applications

Our [survey](#) circulated among academic group leaders to better understand how they recruit postdocs, revealed that most group leaders prefer recruiting candidates directly, rather than advertising positions. If you plan to contact group leaders via unsolicited applications, we suggest:

1. Preparing an email with an informative subject: ‘*Opportunities to join your lab as a postdoc*’
2. Writing a concise text that will be the main body text of the email (instead of a cover letter).
 - a. Motivation is even more important than if you apply for an advertised position, as they might consider funding a position for you.
 - b. In the closing paragraph, show willingness to discuss potential funding opportunities and apply for independent postdoctoral fellowships, highlighting the ones for which you are eligible.
3. Attach your CV to the email.
4. When sending unsolicited applications, discuss what information you can disclose about your research project and publications in preparation with your supervisor.

The example below is adapted from an ‘email’ postdoc cover letter written by an EMBL predoc for a postdoc role. Please treat the letter as an inspiration – not as template whose wording/structure should be copied word-for-word.

Email subject: EMBL PhD - opportunities to join your lab as a postdoc

Dear Prof. XXX,

My name is XXX and I am currently finishing my PhD at the European Molecular Biology Laboratory in Heidelberg under the supervision of Dr. XXX and Dr. XXX (expected graduation June 2021). I have a strong background in computational biology and for my first postdoctoral position, I am highly motivated to expand my scientific knowledge and skills with machine learning approaches applied to biomedicine.

My PhD focuses on developing statistical methods for the analysis of Thermal Proteome Profiling (TPP) experiments with regards to different biological aspects. Through the development and application of statistical methods for TPP analysis, I was able to contribute to several recent projects in the two groups. Such as extending application of TPP to in vivo and human blood experiments (Authors, Year, Journal), and the study of metabolite-protein interactions (Authors, Year, Journal). Furthermore, my PhD allowed me to gain insights into the handling and analysis of various high-throughput data types, such as quantitative proteomics, and RNA-seq (Illumina and Nanopore-sequencing).

Recently, I came your recent work on creating a database of chemical compounds featuring their bioactivity signatures (Year, Journal) and using machine learning to leverage the Proteome Checker platform for compounds for which less data is so far available (Year, Journal). I find the idea of describing chemical compounds by all available features, especially their biological activity, very intriguing and I particularly find the combination of this data with state-of-the-art machine learning approaches to unravel novel therapy options for different diseases highly fascinating.

I am very interested in working with you as a postdoc and would greatly appreciate the opportunity to discuss my research interests with you, your team (e.g. through an online scientific seminar) and explore possibilities to join your lab. I am eligible to apply for different postdoc fellowships – including the Marie Skłodowska-Curie Actions and EMBO – and I am also exploring other German and Swiss funding opportunities.

Please find my CV attached to this email and thank you for your consideration.

Best regards,

Name

ORCID/Google Scholar/GitHub hyperlink

Appendix VII: Proofreading

Note: **we highly recommend using ChatGPT or other tools to proofread / improve the readability of your final cover letter** – carefully craft the prompt to improve the results e.g.

"Please act as a professional editor for my cover letter below. The hiring manager is an academic group leader, so the tone should be professional, concise, and focused on achievements and motivations relevant for academic research. Please:

1. *Correct any grammar, punctuation, and spelling issues.*
2. *Improve the flow to ensure it reads smoothly and remains focused.*
3. *Maintain conciseness and precision, avoiding overly descriptive language and redundant adjectives.*
4. *Check for consistent [British / American] English spelling.*
5. *Offer clear suggestions for any structural changes, explaining your reasoning to help improve readability and impact."*

Incorrect / inconsistent use of tenses

In the cover letter / full sentences in CV:

Current & future work= present continuous tense "I am leading" (=present tense of "to be" + verb in "ing" form)

Previous work = simple past "In my previous role, I led a project" or present perfect (have / has + past participle) "I have led several projects..."

In CV bullet points:

Previous work= simple past tense "led a project ..."

Current work = verb in "ing" form: "leading a project"

except for completed projects & achievements = (simple past) "led a project", "received an award"

Led or lead

Lead is the present tense and led the past tense

- Currently, I am leading a collaboration on....
- In my past role, I led a working group on....

Tricky apostrophes

Years, year's or years' experience

An 's is used when replacing 'of' for a word that does not end in s. For words ending in 's' (including plural forms such as years') the apostrophe comes after s.

- *I have one year of experience = I have one year's experience*
- *I have twelve years of experience = I have twelve years' experience*

Masters or Master's: Master of Science – but Master's degree

Their, they're and there

Their is the possessive. They're is a contraction of they are. There indicates a place. Note that they're is a little informal: for a cover letter it would be better to write in full: you are.

- Lab x took a complementary approach and their results confirmed ours.
- I would like to work there.
- They are working on this.

Effect vs affect

Affect is a verb meaning to change or impact and effect is a noun (that refers to that something has changed):

- The postdoc association survey affected the training offered to fellows.
- The feedback had an effect on the training offered.

Other commonly misspelt words:

prize (*not price*)

separate (not seperate)

liaise (not liase)

UK and American spelling: *Either is fine, but should be consistent*

UK	US
-ise (e.g. organise, prioritise)	-ize (e.g. organize, prioritized)
-our (e.g. honour, colour)	-or (e.g. honor, color)
-re (e.g. centre)	-er (center)
-yse (analyse)	-yze (analyze)
learnt	learned

Appendix VIII: Application checklist

General impression	
	Nice overall look, not too full – margins and font size okay. Check document both printed and online versions
	Motivation, research interests, technical skills, and publications? clear
Cover letter	
	If applying for an advertised position, include the job title and, if applicable, any reference number
	Formatted as a formal letter for faculty positions, or advertised postdoc positions For unsolicited postdoc positions, the cover letter may be the email text
	Fit to position clear from first paragraph or two
	Provides concrete examples demonstrating the impact of your research on the field and key relevant skills
	Motivation to apply for this position / institution clear
	Positive but not presumptive ending
	Readable sentences; most no more than 15-20 words (readability statistics are displayed after checking spelling and grammar in Word and can tell you the average)
	Varied sentence structure – try to diversify the narrative and don't start all sentences with "I"
	Length appropriate (postdoc applications 1 page, faculty positions no more than 2 pages)
CV structure	
	Clear sections + grouping of related information
	Headings and subheadings that provide a summary of the content?
	Information not duplicated (e.g. is PhD research topic outlined in detail under both education & research experience)
	Entries in reverse chronological order for Education, Research experience & Publication-related subsections (most recent thing first)?
	Most relevant things for the position first in non-chronological lists? (e.g. in Technical skill list)
	Consistent and effective use of formatting (bold, bullet points etc.)?
	Are the bullet points icons all identical, indents consistent in different sections?
	Relevant context & quantification provided where appropriate (e.g. taught 30 hours of lectures / year)?
Professional experience / work / research experience section	
	Achievements, outcomes and contributions to your field clear?
	Concise entries?
	Details of your supervisor(s) included?
	Collaborations highlighted? – including institutions and collaborators
Publication list	
	Appropriate subsections for research papers / reviews / preprints / other outputs (e.g. book chapters)?
	Papers that are under review / only submitted clearly in a different section?
	Your name underlined or bold?
	Publication list manageable size (if too long, consider a summary, an hyperlink or an appendix)?
	Consistent reference style?
Language	
	Concise?
	Use of action verbs?
	Active and positive tone?
	No grammar issues? No typos? (see Appendix VII for the common misspellings)
Formalities	
	Saved as a PDF, with your full name or surname in the title (save the job advertisement too – it may not be visible by the time you are invited for interview!)
	Pages numbered, name on each page for longer CVs?
	Basic contact information included?
	Reference list included. Have you already contacted people to ask if they can provide a reference?

Imprint

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This handout is part of our career guidance materials, available from:

<https://www.embl.org/about/info/embl-fellows-career-service/info-resources/job-applications>

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